

Hwy 74 SW of Lake Pleasant Communication Site in Maricopa County, Arizona

**ENVIRONMENTAL ASSESSMENT
DOI-BLM-AZ-P010-2023-0014-EA**

**U.S. Department of the Interior
Bureau of Land Management
Hassayampa Field Office, Phoenix District
2020 E Bell Road
Phoenix, Arizona 85022
623-580-5500**

April 13, 2023



It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

DOI-BLM-AZ-P010-2023-0014-EA

Table of Contents

1.0	Introduction/Purpose and Need	1
1.1	Introduction.....	1
1.2	Purpose and Need	1
1.3	Scoping and Issue Identification.....	3
1.4	Land Use Plan Conformance	3
1.5	Relationships to Statues, Regulations, Manuals, and Other Plans.....	4
1.6	Decision to Be Made.....	4
2.0	Proposed Action and Alternatives	4
2.1	Proposed Action.....	4
2.1.1	Location	5
2.1.2	Lease Area	5
2.1.3	Access	5
2.1.4	Tower	6
2.1.5	Equipment, Shelter, and Supporting Components.....	6
2.1.6	Construction.....	8
2.1.7	Operation and Maintenance	8
2.1.8	Decommissioning and Restoration	9
2.2	No Action Alternative.....	9
2.3	Alternatives Considered but Eliminated from Detailed Analysis.....	10
3.0	Affected Environment and Environmental Consequences.....	11
3.1	General Setting	11
3.2	Resources Considered for Analysis	11
3.3	Types of Effects	12
3.3.1	Affected Environment – General Wildlife, Migratory Birds, and BLM Sensitive Species (Animals)	13
3.3.2	Environmental Consequences – General Wildlife, Migratory Birds, and BLM Sensitive Species (Animals).....	13
3.3.2.1	Proposed Action.....	13
3.3.2.2	No Action Alternative.....	15
3.3.3	Affected Environment – Vegetation Communities	15
3.3.4	Environmental Consequences – Vegetation Communities.....	16
3.3.4.1	Proposed Action.....	16
3.3.4.2	No Action Alternative.....	16
3.3.5	Affected Environment – Visual Resource Management	17
3.3.6	Environmental Consequences – Visual Resource Management.....	18
3.3.6.1	Proposed Action.....	18
3.3.6.2	No Action Alternative.....	19
4.0	Persons, Groups, and Agencies Consulted.....	20
4.1	List of Preparers.....	20
4.2	Public Review	20
4.3	Tribes, Individuals, Organizations, or Agencies Consulted	20
5.0	References	21

List of Appendices

Appendix A –Resources and Issues Identification Checklist
Appendix B – Sensitive Species and Biological Resources Report
Appendix C – Applicant-Proposed Mitigation Measures
Appendix D – Visual Resources Materials

List of Maps

Map 1 Project Vicinity Map
Map 2 Project Location Map
Map 3 Desert Tortoise Habitat and Visual Resource Management Classifications

List of Figures

Figure 2-1 Self-supporting Tower and Communication Facility 7

List of Tables

Table 2-1 Areas of New and Permanent Disturbance 5
Table 4-1 List of Preparers..... 20

List of Acronyms and Abbreviations

AGFD	Arizona Game and Fish Department
APM	Applicant-proposed mitigation
Applicant	InterConnect Towers, LLC
BLM	Bureau of Land Management
BMP	Best management practice
CFR	Code of Federal Regulations
EA	Environmental Assessment
ESA	Endangered Species Act
FCR	Field Contact Representative
FirstNet	First Responder Network Authority
FLPMA	Federal Land Policy and Management Act
HVAC	Heating, ventilation, and air conditioning
ICT	InterConnect Towers, LLC
KOP	Key observation point
Project	Hwy 74 Lake Pleasant Site
RMP	Resource management plan
ROW	Right-of-way
SR	State Route
SRMA	Special Resource Management Area
VRM	Visual resource management (BLM)

1.0 INTRODUCTION/PURPOSE AND NEED

1.1 Introduction

InterConnect Towers, LLC (ICT or Applicant), has submitted a right-of-way (ROW) application pursuant to the Federal Land Policy and Management Act of 1976 (FLPMA) and a Plan of Development (InterConnect Towers LLC 2021) for the Hwy 74 SW of Lake Pleasant Communication Site (Project) to construct, operate, maintain, and decommission a communication site and access road on public lands administered by the Bureau of Land Management (BLM) (Map 1). The following sections describe the application and environmental review processes, as well as the relevant information concerning the proposed action.

The Applicant seeks to provide improved broadband and cellular communication capability within and around the Highway 74 (Carefree Highway) corridor and surrounding BLM lands as well as north to Lake Pleasant Arizona (Map 2). Highway 74 is an important Emergency and Law Enforcement response corridor that also carries regional traffic between northern Phoenix and Wickenburg, Arizona. Wireless telecommunication providers (i.e., Verizon, AT&T, and T-Mobile, etc.) have determined a need for an additional communication site based on any one of or all of the following criteria:

- Need to provide broadband signal coverage to an area or zone.
- Need to strengthen/densify coverage to an area or zone.
- Customer demand for coverage
- Emergency Response Agency demand for coverage
- Law Enforcement Agency demand for coverage
- Federal/Homeland Security demand for coverage.

1.2 Purpose and Need

The BLM's purpose is to respond to the Applicant's request for ROW grant for the proposed construction and operation of a communication tower and ancillary facilities within Arizona. The need for the BLM's action arises from FLPMA, which establishes a multiple-use mandate for management of federal lands, including systems for transmission or reception of electronic signals

for communication, as outlined in Title V of FLPMA. The BLM's action in considering the Applicant's ROW applications is provided under the authority of the Secretary of the Interior to grant, issue, or renew ROWs for systems "for transmission or reception of radio, television, telephone, telegraph, and other electronic signals, and other means of communication" (43 United States Code 1761). This site will also provide rural wireless broadband coverage and service to Highway 74 travelers and Lake Pleasant visitors.

Pursuant to 43 Code of Federal Regulations (CFR) 2801.2, it is the BLM's objective to grant ROWs and to control ROW use on public lands in a manner that: (a) protects the natural resources associated with public lands and adjacent lands, whether private or administered by a government entity; (b) prevents unnecessary or undue degradation to public lands; (c) promotes the use of ROWs in common, considering engineering and technological compatibility, national security, and land use plans; and (d) coordinates, to the fullest extent possible, all BLM actions under the regulations, in part with state and local governments, interested individuals, and appropriate quasi-public entities. The purpose and need are used to formulate a reasonable range of alternatives to be considered in this Environmental Assessment (EA).

This Proposed Action would, if approved, assist the BLM in addressing the management objectives in:

- Executive Order No. 13616, issued on June 12, 2012, "Accelerating Broadband Infrastructure Deployment," to facilitate wired and wireless broadband infrastructure deployment on federal lands, buildings, ROWs, federally assisted highways, and tribal and individual Indian trust lands, particularly in underserved communities.
- Public Law 112-96, signed on February 22, 2012, as the "Middle Class Tax Relief and Job Creation Act of 2012", created the First Responder Network Authority (FirstNet). FirstNet is assigned the mission to build, operate, and maintain the first high-speed, nationwide wireless broadband network dedicated to public safety. FirstNet will provide a single interoperable platform for emergency and daily public safety communications.

1.3 Scoping and Issue Identification

Initial scoping for this EA consisted of an internal review of the Project by BLM interdisciplinary resource staff. The BLM determined that public scoping was not required for this Project. Based on internal review, the following issues were identified for this Project:

- How will Project design features limit potential direct impacts to the Sonoran Desert tortoise (*Gopherus morafkai*)?
- How will Project design features minimize changes to the visual character of the Project area?

1.4 Land Use Plan Conformance

The relevant resource management plan (RMP) for the proposed project site is the 2010 Bradshaw-Harquahala RMP (BLM 2010). The Project site is located within the Castle Hot Springs Special Resource Management Area (SRMA). The proposed Project would conform with the SRMA or RMP objectives. BLM's Management Decisions, as stated in the RMP Record of Decision (ROD) in Section 2.3.5.2.3 Communication Sites, are as follows (BLM 2010:46):

- LR-20 Accept applications for communication sites on a case-by-case basis and in accordance with the resource management prescriptions in this land use plan. BLM planning related to communication infrastructure must, in accordance with the Telecommunications Act of 1996, help facilitate implementing wireless telephone systems, in compliance with existing law, by making Federal lands and facilities available for communication sites.
- LR-21. Consider communication site applications on lands that have been identified for disposal on a case-by-case basis. If an application is approved and the lands are subsequently exchanged or sold, reserve the communication site, subject to valid existing rights.
- LR-22. Retain and make subject to valid existing rights previously designated communication sites. On lands that have been acquired or identified for retention, limit communication site development to previously designated sites. Develop communication site plans for all designated sites.

- LR-23. Design communication sites following guidelines developed by the USFWS to minimize impacts to migratory birds.

1.5 Relationships to Statutes, Regulations, Manuals, and Other Plans

The Proposed Action and Alternatives are consistent with federal laws and regulations, plans, programs, and policies of affiliated tribes, other federal agencies, and state and local governments including, but not limited to, the following:

- Federal Land Policy and Management Act of 1976.
- The Endangered Species Act of 1973, as amended.
- Migratory Bird Act – Executive Order 13806.
- American Indian Religious Freedom Act of 1979.
- National Historic Preservation Act.
- Archaeological Resources Protection Act of 1979, as amended; and
- National Environmental Policy Act of 1969.

1.6 Decision to Be Made

The BLM will use the results of the analyses in this EA to make an informed decision to approve, approve with modifications or conditions, or disapprove the Applicant's request for a ROW grant to construct, operate, maintain, and decommission a communication site and access road on BLM-administered lands, consistent with applicable land use plans and regulations.

2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 Proposed Action

The Applicant proposes to construct, operate, and maintain a new multi-tenant wireless communication site in Maricopa County, Arizona. The Project site is titled Hwy 74 SW of Lake Pleasant (AZA-37452) (Map 1).

The proposed location is strategically placed as determined by local environmental constraints and engineered radio frequency coverage, including results of propagation studies, terrain that did not provide maximum coverage of the area, and terrain that blocked the signal propagation.

2.1.1 Location

The proposed location for the Project site lies along Highway 74 (Hwy 74), 0.10 miles northeast of Hwy 74. The Project area lies solely on federal lands, within Maricopa County. The Project location is in the NW¼ Section 25, Township 6 North, Range 1 West (Gila and Salt River Base Meridian).

2.1.2 Lease Area

The lease area for the Project would be a 130-foot by 150-foot by 160-foot by 105-foot by 50-foot polygon adding up to approximately 22,462 square feet or 0.51 acres (Map 2).

Areas of new, permanent disturbance would include the communication site lease area and the area for construction of the access road, as described below.

All new disturbance would be considered permanent in nature, given the sensitivity of desert ecosystems to ground-disturbing activities. Areas of disturbance include the 0.51-acre communication site and 1.38 acres for the new access road. The total area of new and permanent disturbance would be 1.89 acres, as shown in Table 2-1.

TABLE 2-1 AREAS OF NEW AND PERMANENT DISTURBANCE		
Project Feature	Area Dimensions (feet)	Estimated Ground Disturbance (acres)
Lease area	130 by 150 by 160 by 105 by 50	0.51
Proposed new access road with 20-foot ROW	3,013 by 20	1.38
Total area of ground disturbance		1.89

2.1.3 Access

Access to the site would be from State Route (SR) 74 (West Carefree Highway) via North Castle Hot Springs Road. The site would be accessible solely via the proposed, unpaved 20-foot-wide road (60,260 square feet 3,013 feet long by 20 feet wide for 1.38 acres total access road). Following

access road construction and compound completion, the Applicant would provide the BLM an “As Built” plan of the road, as required by the ROW grant (Map 1).

2.1.4 Tower

The tower would be a self-supporting, three-legged, lattice-type structure, and would be 196 feet in height. The tower would serve as the structure upon which the communication equipment would be mounted. The tower would be placed upon a concrete slab or caisson foundation and would consist of either cast-in-place caissons or shallow foundations designed to carry axial loads and moments of force applied by wind and other factors on the tower. The tower, foundations, and all other structures on the site would be built to professional standards and applicable building codes. Soil tests and other investigations would be performed within the location of the proposed site to determine the specific foundation requirements.

The structural members and bracing units of the tower would be constructed of industry-standard galvanized steel with a silver-gray color tone. The types of communication equipment installed on the tower would depend on the specific carriers housed at the site and the equipment requirements for their specific systems but would likely include a rectangular antenna array, omni antennas, and microwave dishes (Figure 2-1).

2.1.5 Equipment, Shelter, and Supporting Components

The site would include two equipment buildings to house interior communication equipment. The equipment buildings would each be a pair of 20-foot by 20-foot-wide slab block buildings to accommodate up to four tenants, including three solar arrays to power their equipment. Alternately, the shelter could be an assemblage of smaller industry standard prefabricated units or equipment cabinets brought to the site by truck and installed onsite. Regardless of construction method, the buildings would be mounted on a concrete foundation sized according to structure dimensions and other design requirements. The shelter would likely be divided into two or more interior compartments or rooms depending upon carrier requirements. The shelter would include an environmental control system for heating, ventilation, and air conditioning (HVAC) to keep the interior of the shelter within the temperature range required for the operation of the electronic communication equipment inside.

Up to three solar arrays would be built, depending on the carrier's request, each 30 feet by 140 feet wide. (Figure 2-1).

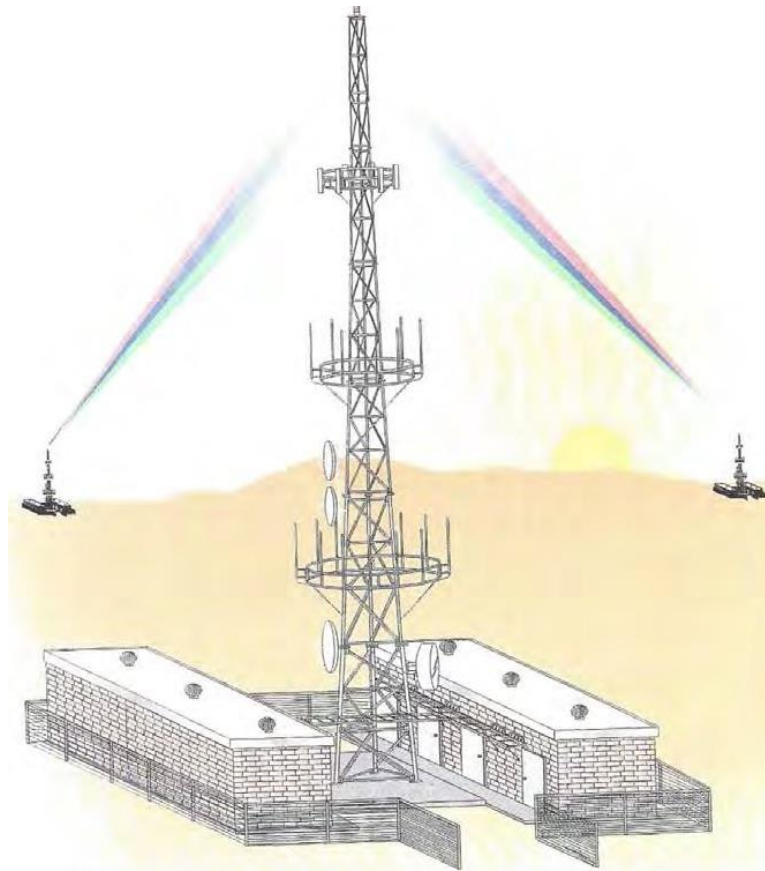


Figure 2-1 Self-supporting Tower and Communication Facility

In addition to the solar arrays, the compound would include a maximum of three standby generators located within the compound and mounted on concrete pads. The generators would provide electric power in the event of failure of the commercial electric power supply or solar energy. The generators would be powered by a maximum of three 5-foot by 20-foot, 2,000-gallon propane-fed steel tanks within the compound. The propane tanks would also be mounted on concrete pads.

The communication site would be enclosed within a chain-link fence or high security (anti-climb, anti-cut) fence following the Motorola R56 Design Standard with a 12.5-foot-wide entrance gate to the site.

2.1.6 Construction

Site construction would include clearing and grading, followed by excavation for tower footings and shelter slabs. Concrete would be required for the tower foundation and placement of caissons, depending on the tower foundation design. All excess soils would be spread evenly across the site. While the Applicant assumes premixed concrete would be delivered to the site by concrete trucks, a concrete batch station would be set up onsite if this is not feasible.

The tower, shelter, and other components would be assembled after the foundations and slabs are completed. Propane tanks and generators would be mounted on concrete foundations with berms to contain leaks or spills. Finally, a chain-link fence and gate would be installed around all Project components.

Vehicle speeds on the access roads would be limited to 15 miles per hour to reduce fugitive dust emissions, but the road would not be watered during construction.

Construction of the communication site would take approximately 60 to 120 days, depending on site conditions, worker availability, and other factors. The number of workers on site would vary between four and six on any given day.

The new access road would be graded to an average width of 14 feet or less with several 20-foot-wide passing lanes using a bulldozer or grader. Minor maintenance would be required along the new access road within the granted access road ROW, approximately every 10 years.

2.1.7 Operation and Maintenance

Once construction is complete, the facility would operate 24 hours a day, 7 days a week for the duration of the lease period. The electronic equipment in the shelter(s) and/or equipment cabinets would be temperature controlled by wall-mounted HVAC units. During warmer periods of the year, the cooling units could periodically be operated 24 hours a day.

Maintenance activities at the site would consist of monthly visits by technicians associated with each of the carriers who have equipment at the site. Though the number of site visits would vary depending upon specific maintenance requirements or other activities, the number of visits per year would likely be between 6 to 10; however, this number could be greater and more frequent

during the initial installation of carrier equipment. Workers would typically arrive in crews of one to three persons in standard road vehicles. A typical monthly visit could be conducted in as little as an hour but could extend up to a full day or multiple days depending on the task.

The onsite emergency standby generators would typically switch-on automatically on a weekly to monthly basis and run for approximately 30 minutes to ensure the maintenance of adequate lubrication within the units and to test them for proper operation. The generators would be equipped with sensors to report their operational status; in the event of a fault, a technician would be dispatched to conduct repairs.

Refills of the propane fuel for the generators would require periodic visits by a fuel delivery truck. Fuel levels would be monitored by a remote system, and refills would occur as needed, likely monthly or annually, assuming no solar or generator power outages occur. A prolonged solar power outage would potentially necessitate more frequent visits.

The access road could require occasional maintenance following heavy rainfall events. Routine maintenance activities would be limited to minor smoothing using a front-end loader or grader during dry conditions. No road widening would occur as a part of the maintenance.

2.1.8 Decommissioning and Restoration

Upon termination of the lease, the Applicant would restore, under the direction of the BLM, the communication site and access road as close to its original condition as possible. This would entail the following:

- All structures including tower, fencing, and other related structures would be deconstructed and removed from the communication site.
- Any cement foundations would be covered over with local soils from within the compound.
- Any access gates for the Project site would be removed.
- Revegetation would be allowed to occur naturally to blend with the surrounding area.

2.2 No Action Alternative

Under the No Action Alternative, the BLM would deny the application submitted by the Applicant for constructing, operating, and maintaining the Project; therefore, the associated environmental

impacts would not occur. Additionally, demand for the expansion of wireless broadband and call signal coverage, strength, and the provision of line-of-site 4G and 5G digital coverage in these areas would remain unmet.

2.3 Alternatives Considered but Eliminated from Detailed Analysis

No other action alternatives were considered for this Project.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter identifies and describes the current condition and trend of elements or resources in the human and natural environment which may be affected by the proposed Action or No Action Alternative. The Affected Environment is the same for all alternatives.

3.1 General Setting

The analysis area for Biological Resources (Sections **Error! Reference source not found.** and **Error! Reference source not found.**) is approximately 290 acres of BLM-managed lands located in Maricopa County, Arizona (Map 1). The analysis area for visual resource management (VRM) (Section **Error! Reference source not found.**) includes the visible areas within a 3-mile radius of the proposed tower site, including two key observation points (KOP) located within 0.5-mile of the Project site.

The proposed Project lies within the Bradshaw-Harquahala Management Unit, managed by the Hassayampa Field Office within the Phoenix District of the BLM. Land uses within and near the analysis area include dispersed recreation, agricultural fields, powerlines, road crossings, and grazing (BLM 2010). Recreation uses include various forms of motorized recreation, target shooting, hiking, biking, equestrian use, recreational mining, and camping.

Vegetation found in the analysis area is typical of the Arizona Uplands Subdivision of the Sonoran Desertscrub Biotic Community. This subdivision consists primarily of low mountains, hills, and bajadas. Annual precipitation ranges between 7 and 20 inches. The Arizona Upland Subdivision supports dense populations of cacti like saguaro (*Carnegiea gigantea*) and cholla (*Cylindropuntia* spp.) as well as woody plants like palo verde (*Parkinsonia* spp.) and velvet mesquite (*Prosopis velutina*) (Brown and Lowe 1980 [1994]).

3.2 Resources Considered for Analysis

The following resources are or may be present in the analysis area, may be affected by the Proposed Action or No Action Alternative, and warrant detailed analysis (see Appendix A for rationale for those resources present, but not analyzed in detail).

3.3 Types of Effects

In this document, the terms “effect” and “impact” are used synonymously. Effects fall into two categories:

- **Direct:** Caused by the action, same time, and place.
- **Indirect:** Caused by the action, but later in time or further in distance, but are still reasonably foreseeable.
- **Cumulative:** caused by the incremental impact of the action, decision, or project when added to other past, present, and reasonably foreseeable future actions.

For the purpose of this analysis, the duration of the impact is defined as follows:

- **Short-term:** Impacts associated with construction of the access road and communication site would be for approximately 90 days.
- **Long-term:** Impacts after the operation of the access road and communication site would be for approximately 10 years or more.

For the purpose of this analysis, intensity, or severity of the impact is defined as follows:

- **Negligible:** Changes would not be detectable and/or measurable. The resource would be essentially unchanged or unaltered.
- **Minor:** Changes would be detectable, localized, and/or measurable. The resource would be slightly changed or altered.
- **Moderate:** Changes would be clearly detectable, measurable, and/or have an appreciable effect on the resource. The resource would be notably changed or altered.

For the purpose of this analysis, the type of impact is defined as follows:

- **Adverse:** Impacts that would have a detrimental effect to a resource.

- **Beneficial:** Impacts that would have a positive effect to a resource.

3.3.1 Affected Environment – General Wildlife, Migratory Birds, and BLM Sensitive Species (Animals)

Biological resources were analyzed in an area that encompasses all Project features (roads and communication structures) (Map 3). A review of existing information for special-status species considered those listed as threatened or endangered under the Endangered Species Act (ESA), species proposed or candidates for ESA listing, bald eagles and golden eagles, and species listed as Sensitive by the BLM in Arizona. Special-status species were evaluated for potential presence in the analysis area based on the habitat preferences and natural history of each species. However, a species may potentially be present in the analysis area without being affected by the Project if the species is not dependent on resources affected by the Project (e.g., some migratory birds) or is not present in areas disturbed by the Project (e.g., plants that can be avoided by the Project's design). Appendix B provides a list of all species that were evaluated for potential presence.

The analysis area supports wildlife typical of Sonoran desertscrub, including migratory birds. BLM Sensitive Species that may be present include several bat species (foraging habitat only), the Sonoran Desert tortoise, and the monarch butterfly (*Danaus plexippus*). The analysis area is within the Black Canyon unit of BLM Category II mapped habitat for the Sonoran Desert tortoise. The monarch butterfly is migratory and may occasionally pass through the analysis area, but suitable host plants for their larvae are not present. General wildlife that could occur in the analysis area includes coyotes (*Canis latrans*), mule deer (*Odocoileus hemionus*), bobcats (*Lynx rufus*), and wild burros (*Equus asinus*).

3.3.2 Environmental Consequences – General Wildlife, Migratory Birds, and BLM Sensitive Species (Animals)

3.3.2.1 Proposed Action

The Proposed Action would result in approximately 1.89 acres of permanent ground disturbance and the loss of the vegetation and habitat functions present within those 1.89 acres. This affect would result in adverse and long-term impacts to wildlife by displacing individuals to adjacent habitats and by removing habitat from 1.89 acres (approximately less than 1 percent) of the 290

acres in the analysis area. The loss of the saguaros by the proposed Project would result in the loss of nest cavities for birds, including the BLMS gilded flicker (See Appendix B).

Ground-disturbing activities, traffic, and human presence associated with construction would result in adverse and short-term impacts to wildlife. The noise and the presence of equipment could result in short-term displacement of wildlife species during construction but is not anticipated to result in population decrease within the analysis area for any species. Operation of the Project would result in the long-term presence of a communication structure that would create a permanent source of disturbance. However, the proximity to Highway 74 provides an existing source of disturbance to wildlife.

The BLM proposes to create a 689-acre, minimally developed, shooting facility at Saddleback Mountain Recreation Area within the Castle Hot Springs SRMA. This area would be located approximately 0.8 miles south of SR 74 and would include an 18-acre facility area with a designated shooting platform, target zone, parking area, backstop berms and secondary backstops (hillsides), and soil and erosion control features (check dams and culverts). This would provide a more structured opportunity for recreational shooting that would be contained rather than dispersed, as it is currently. Secondary activities in this recreation area would include off-highway motorizes travel and hiking (BLM 2020). Thus, impacts of the Proposed Action would be limited to species already exposed to human activity and associated disturbance. Continued maintenance and access for the proposed tower site would be infrequent and of low intensity, and potential mortality of migratory birds by collision is expected to be low. Therefore, overall impacts from the Project would be minor, adverse, and long-term.

Mitigation Measures

Appendix C lists Applicant-proposed mitigations (APM) that apply to the entire Project, wherever affected resources are present. APMs will address concerns for the following affected resources:

- Wildlife: APMs GM-1 through GM-7
- Migratory Birds: APMs MB-1, MB-2
 - Vegetation that could provide habitat for nesting birds (e.g., shrubs, trees, cacti with cavities) must be cut or cleared prior to construction during non-nesting season

(September 1 – February 28). This will alleviate concerns of accidental nest destruction and disturbance during the construction phase.

- BLM Sensitive Species: DT-1 through DT-10 (intended to protect Sonoran Desert tortoises and contribute towards minimizing impacts on other wildlife).

3.3.2.2 No Action Alternative

Under the No Action Alternative, no new facilities would be developed, and no new access road would be constructed. No new ground disturbance and no direct affects to wildlife would occur in response to the proposed Project. Current conditions of limited broadband and cellular signal would continue with the potential for indirect impacts associated with the public access and recreational use. Impacts under the No Action Alternative would be negligible, adverse, and long-term.

3.3.3 Affected Environment — Vegetation Communities

Vegetation found in the analysis area is typical of the Arizona Uplands subdivision of the Sonoran desertscrub biotic community. This subdivision consists primarily of low mountains, hills, and bajadas. Dominant plants include triangle bur ragweed (*Ambrosia deltoidea*), yellow paloverde (*Parkinsonia microphylla*), saguaro (*Carnegiea gigantea*), cholla (*Cylindropuntia* sp.), and desert ironwood (*Olneya tesota*). The Project site supports relatively high shrub and tree cover, with creosote bush (*Larrea tridentata*), cattle saltbush (*Atriplex polycarpa*), and ocotillo (*Fouquieria splendens*) as some of the dominant species. Numerous annual forb species are also present. Invasive plants are present, including stinknet (*Oncosiphon piluliferum*), listed as a noxious weed by the Arizona Department of Agriculture.

A reconnaissance survey of the analysis area was conducted to record plant species that were present and assess the habitat conditions within the site for the potential to support special-status species. Appendix B provides the results of the survey. The analysis area consists of approximately 25 to 30 saguaros per acre, and there are approximately 8 to 10 saguaros within the Project site boundary.

A species may potentially be present in the analysis area without being affected by the Project if the species is not present in areas disturbed by the Project (e.g., plants that can be avoided by the Project's design).

3.3.4 Environmental Consequences – Vegetation Communities

3.3.4.1 Proposed Action

Ground disturbance can create conditions that favor invasive plant species over native vegetation. Additionally, weed seeds can be transported into works areas in soils and rock material, in or on vehicles and equipment that are not properly cleaned, or in seed mixes that are not weed-free. Ground disturbance in areas already containing weed populations can allow those populations to expand and further affect native vegetation. Transport of weed seeds into areas without infestation can allow the establishment of new weed populations. The proposed permanent disturbance of 1.89 acres equates to less than 1 percent of the 290-acre analysis area. Impacts to vegetation communities would be negligible, adverse, and long-term.

Up to 16 saguaros could be impacted by project construction within the proposed compound only. No saguaros will be removed or affected along any portion of the 3,000+-long access road, and transplant of the larger saguaros may not be feasible. If loss of saguaros cannot be avoided by realignment or relocation of the road and other project facilities, then saguaros would be replaced as required for mitigation where practical.

Mitigation Measures

Appendix C lists APMs that apply to the entire Project wherever affected resources are present. APMs will address concerns for the following affected resources:

- Non-Native, Invasive and Noxious Species: GM-3.
- Saguaro Avoidance: S-1.

3.3.4.2 No Action Alternative

Under the No Action alternative, no new facilities would be developed, and no new access roads would be constructed. No New ground disturbance and no direct affects to vegetation communities would occur in response to the proposed Project. Current conditions would

continue with the potential for indirect impacts associated with public access and recreational use. Impacts from the No Action Alternative on vegetation communities would be negligible, adverse, and long-term.

3.3.5 Affected Environment – Visual Resource Management

For the purposes of this assessment, the visual resource analysis includes the area within 3 miles of the Project components. An inventory of visual resources within the analysis area was conducted, and the BLM VRM objectives have been identified. The analysis area is located within the Arizona Upland/Eastern Sonoran Mountains subdivision, characterized by rolling foothills within the Project area. Vegetation for this area consists of Arizona Upland plants, characterized by Saguaro, paloverde, mesquite, creosote, jojoba, and a variety of forbs with denser vegetation in the washes and hillside slopes with less dense vegetation on hilltops. Manmade features primarily consist of SR 74, Castle Hot Springs Road, a 69-kilovolt transmission line located approximately 0.35 miles east of the Project, and a distribution line parallel to Castle Hot Springs Road.

The proposed Project site and lands within the analysis area are classified in the Resource Management Plan Evaluation (BLM 2015) as VRM Class VI as shown on Map 3 (according to the BLM Manual 8431). Lands surrounding the Project site are VRM Class II and Class III. The Visual Resource Inventory (Scenic Quality Rating Unit) for the analysis area is Class B scenery (Appendix D).

The nearest residential viewers are approximately 4 miles to the north in the community of Vistancia/Trilogy in the City of Peoria. There are no dispersed residential viewers in the analysis area.

The primary travel route is SR 74 that passes approximately 400 feet from the proposed Project and is the location of KOP 1 as well as Simulation 1 (Appendix D). Recreation viewers arriving to or leaving Lake Pleasant Recreation Park, whose main entry is approximately 1.9 miles north of the Project site, are generally at the park for boating activities or recreating along the shoreline and have moderate to high concern for landscape views. The nearest park boundary is located approximately 1.4 miles from the tower location with no anticipated views of the Project from

inside the park boundary. Recreation travelers accessing the park from Hwy 74 and Hot Castle Springs Road would be traveling at moderate rates of speed with direct views of the Project.

3.3.6 Environmental Consequences – Visual Resource Management

3.3.6.1 Proposed Action

The visual resource assessment focused on potential impacts to both scenery and viewers, as well as conformance with BLM VRM Objectives. The report also includes the results of visual contrast ratings and simulations that were prepared to represent views of the proposed Project from two KOPs within the study area (Map 3).

Impacts to residential areas are not expected to be screened by topography. Impacts to travelers along SR 74 and Castle Hot Springs Road are expected to be low as the Project is seen in the middle ground and Moderate as travelers pass by the site. The Project would be seen in the context of the existing transmission line from these locations and would thus not attract attention (see KOP 1 and 2 and Simulations in Appendix D).

Mitigation Measures

To reduce contrast to the degree practicable, mitigation measures and/or design features can be incorporated into projects. These features have been incorporated into a set of APMs included in Appendix C.

Conformance with Management Objectives

Based on the overall moderate degrees of contrast from KOPs 1 and 2 (see Appendix D for KOP worksheets and simulations), construction and operation of the Project would conform with the management objectives of the VRM Class IV designation for the site as follows:

To provide for management activities which require major modification of the existing character of the landscape. Allowed Level of Change: The level of change to the characteristic landscape can be high. Management activities may dominate the view and may be the major focus of viewer attention. However, the impact of these activities should be minimized through careful siting, minimal disturbance, and repeating the basic elements of form, line, color, and texture within the

existing setting. The Project is located on Class IV VRM but is adjacent to Class III and Class II lands.

3.3.6.2 No Action Alternative

Under the No Action Alternative, the BLM would deny the application submitted by the Applicant for constructing, operating, and maintaining the Proposed Action; therefore, the impacts to visual resources would not occur. Other impacts in the area from recreational activities would continue. Overall impacts to VRM under the No Action Alternative would be adverse, negligible, and long-term.

4.0 PERSONS, GROUPS, AND AGENCIES CONSULTED

4.1 List of Preparers

Preparers, contributors, and consultants involved in preparation of this EA (including BLM and U.S. Department of Agriculture Forest Service staff), are listed in **Error! Reference source not found.**:

TABLE 4-1 LIST OF PREPARERS		
Name	Title	Project Expertise
Bureau of Land Management		
Dale Ohnmeiss	Planning and Environmental Coordinator	NEPA Compliance
James Anderson	Land and Realty Specialist	Lands and Realty
Roger Joos	Wildlife Biologist	Biological Resources
Tim Watkins	Archeologist	Cultural Resources
Environmental Planning Group, LLC		
Mickey Siegel	Project Manager	Environmental Planning
David Kahrs	Senior Biologist	Biology
Emily Curci	Biologist	Biology/Environmental Planning
Louise Brown	Technical Editor	Editing/Document Production
N. Conrad Langley	Landscape Architect	Visual Resources
Kate Wilson	GIS Analyst	GIS

4.2 Public Review

This “draft” EA has been made available to the public for review and comment for 15-days. The BLM sent notification of this document’s availability to ## individuals, organizations, and agencies by postcard. All comments would be reviewed and categorized by the BLM. The BLM would address the comments received in the Decision Record. (BLM Handbook 1790-1)

4.3 Tribes, Individuals, Organizations, or Agencies Consulted

The following parties were notified of this document’s availability for review and comment:

- Arizona State Highway Department

5.0 REFERENCES

Brown, D.E., and C.H. Lowe. 1980 [1994]. Biotic Communities of the Southwest. Map. University of Utah Press.

Bureau of Land Management. 2010. ROD – ARMP: Bradshaw-Harquahala, Available at: https://eplanning.blm.gov/public_projects/lup/1350/13345/13413/Bradshaw-Harquahala_Record_of_Decision_and_Approved_Resource_Management_Plan_pdf.pdf, accessed May 2020.

_____. 2015. Resource Management Plan Evaluation Report. Bradshaw-Harquahala and Agua Fria National Monument Planning Areas. Available at: https://eplanning.blm.gov/public_projects/lup/1350/157910/193082/Final_Evaluation_08312015.pdf, accessed May 2020.

_____. 2020. Recreational Shooting Sports Project – Final Environmental Assessment. U.S Department of the Interior.

InterConnect Towers LLC. 2021. Hwy 74 SW of Lake Pleasant Plan of Development. April.

Appendices

Appendix A –Resources and Issues Identification Checklist

A1 Supplemental Authorities

Appendix 1 of BLM's NEPA Handbook (H-1790-1) identifies supplemental authorities that are subject to requirements specified by statute or executive order and must be considered in all BLM environmental documents. Table A-1 lists the Supplemental Authorities and their status in the Project area. Supplemental authorities that *may be affected* by the Proposed Action or No Action Alternative and *warrant detailed analysis* are further described in this EA.

TABLE A-1 SUPPLEMENTAL AUTHORITIES			
Resource	Present (Yes/No)	May be Affected (Yes/No)	Rationale for Not Analyzing Resources in Detail
Air Quality	Yes	No	The BLM has reviewed the National Ambient Air Quality Standards for the Analysis Area. The area is within non-attainment for Ozone (O ₃). Motor vehicle emissions are a precursor to the formation of Ozone. During road improvements and installation of the communications facility, there would be increases in emissions from motor vehicles and equipment. Impacts to Air Quality would be localized, adverse, short-term, and negligible. During operations of the communication facilities there would be an increase in motor vehicle traffic to and from the communications facility. Impacts to Air Quality would be adverse, long-term, and negligible. No detailed analysis is warranted.
Areas of Critical Environmental Concern	No	No	There are no Areas of Critical Environmental Concern within the Analysis Area.
Cultural Resources	No	No	A Class III cultural resources survey was completed for the Analysis Area. No cultural sites are present (EPG Technical Report 2021-023).
Environmental Justice	No	No	There are no disproportionately low income or minority populations in the Analysis Area.
Farm Lands (prime or unique)	No	No	There are no U.S. Department of Agriculture designated prime or unique farm lands in the Analysis Area.
Floodplains	No	No	There are no Federal Emergency Management Agency designated flood hazard areas in the Analysis Area.

**TABLE A-1
SUPPLEMENTAL AUTHORITIES**

Resource	Present (Yes/No)	May be Affected (Yes/No)	Rationale for Not Analyzing Resources in Detail
Noxious and Invasive Weeds	Yes	No	Noxious or invasive weeds are present in the Analysis Area (Appendix D). If their populations increase or spread to new areas as a result of the surface disturbing activities, ICT may address these populations through an integrated weed management approach consistent with the Phoenix District Integrated Weed Management Plan (BLM 2015). Eradication of weeds in the communication facility area may include the application of herbicides. No detailed analysis is warranted.
Migratory Birds	Yes	Yes	Carried forward for detailed analysis in Sections 3.4 and 4.4 and Appendix B.
Native American Religious Concerns	No	No	<p>The American Indian Religious Freedom Act of 1978 (42 U.S.C. 1996) requires federal agencies to consider whether their proposals impeded access to sacred sites required in their religions, including cemeteries, by Native Americans. Executive Order 13007 (Indian Sacred Sites) requires federal agencies to: (1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and (2) avoid adversely affecting the physical integrity of such sacred sites.</p> <p>No alternative has the potential to limit or prevent access to sacred sites within the Analysis Area. Therefore, the Proposed Action and alternatives would have no direct, indirect, or cumulative impact on Native American Religious Concerns.</p>
Threatened or Endangered Species	No	No	There is no proposed or designated critical habitat, nor is there habitat for, threatened or endangered species in the Analysis Area.
Wastes, Hazardous or Solid	No	No	Resource not present.
Water Quality (Surface/Ground)	No	No	Resource not present.
Wetlands/Riparian Zones	No	No	Resource not present.
Wild and Scenic Rivers	No	No	There are no Congressionally-designated Wild and Scenic Rivers in the Analysis Area.
Wilderness	No	No	There are no Congressionally-designated Wilderness areas in the Analysis Area.
SOURCE: See BLM Handbook H-1790-1, Appendix 1 – Supplemental Authorities to be Considered (January 2008)			

A2 Resources or Uses Other than Supplemental Authorities

BLM specialists have evaluated the potential impact of the Proposed Action or No Action Alternative on these resources and documented their findings (Table A-2). Resources or uses that *may be affected* by the Proposed Action or No Action Alternative and *warrant detailed analysis* are further described in this EA (BLM Handbook H-1790-1).

TABLE A-2 RESOURCES OR USES OTHER THAN SUPPLEMENTAL AUTHORITIES			
Resource or Issue	Present Yes/No	May be Affected Yes/No	Rationale for Not Analyzing Resources in Detail
BLM Sensitive Species (animals)	Yes	Yes	Carried forward for detailed analysis in Sections 3.3.
BLM Sensitive Species (plants)	No	No	Resource not present.
General Wildlife	Yes	Yes	Carried forward for detailed analysis in Sections 3.3.
Lands and Realty	Yes	No	Under the Proposed Action, the BLM would issue a lease to ICT for construction of a new access road and installation of a communication facility. This would be a long-term and beneficial impact for additional rural wireless broadband service to lands and realty. No detailed analysis is warranted.
Lands with Wilderness Characteristics	No	No	There are no designated Lands with Wilderness Characteristics managed to protect wilderness character within the Analysis Area.
Livestock Grazing	Yes	No	The Analysis Area is approximately 0.75 miles north of the Lower Bo Nine grazing allotment, but does not interfere with it. The project would have no effect on grazing operations or access to range developments. No detailed analysis is warranted.
Minerals	No	No	There are no notice- or plan-level mining operations in the Analysis Area. There are no unpatented mining claims in the Analysis Area.
Paleontological	No	No	The BLM has reviewed the Potential Fossil Yield Classification System for the Analysis Area. There is a low potential for fossils based on these classifications within the Analysis Area.
Recreation	Yes	No	The Analysis Area is within the Hot Springs Special Recreation Management Area. The project would have no effect on recreational uses in the area.

TABLE A-2 RESOURCES OR USES OTHER THAN SUPPLEMENTAL AUTHORITIES			
Resource or Issue	Present Yes/No	May be Affected Yes/No	Rationale for Not Analyzing Resources in Detail
Socioeconomics	No	No	During the improvements to an access road and installation of a communication facility, there would be minimal economic contributions to the region from the purchase of supplies and materials, and from ICT and contractor employees. No detailed analysis is warranted.
Soils	Yes	No	The project would result in short-term and permanent surface disturbance to approximately 1.84 acres of BLM-managed lands. Best management practices (BMP) would be utilized to minimize soil erosion caused by wind or water. Erosion and sediment loss within disturbed areas would be controlled through BMPs such as an access road being constructed with a 2 percent outslope to promote gentle sheeting of rainwater. Occasional (every 10 years) road maintenance where the natural rock and soil was determined to require these measures would also likely occur. Construction equipment staging and access and disposal or temporary placement of excess fill within drainages would be prohibited. Whenever possible, grading would be minimized to limit soil exposure (See APMs). Impacts to soils would be localized, adverse, negligible and long-term. No detailed analysis is warranted.
Travel Management	Yes	No	The Analysis Area is within the Table Mesa Travel Management Area. The project would not change existing route designations
Vegetation	Yes	Yes	Carried forward for detailed analysis in Section 3.5 and Appendix B.
Visual Resource Management	Yes	Yes	Carried forward for detailed analysis in Sections 3.5.
Wild Horses and Burros	No	No	The Analysis Area is within the Lake Pleasant Herd Management Area (HMA) for wild burros.

Appendix B – Sensitive Species and Biological Resources Report

**SENSITIVE SPECIES AND BIOLOGICAL RESOURCES REPORT FOR ICT'S
PROPOSED HWY 74 SW OF LAKE PLEASANT COMMUNICATION SITE**

Prepared for:
U.S. Department of the Interior
Bureau of Land Management
Phoenix District Office
21605 North 7th Avenue
Phoenix, AZ 85027

Prepared on behalf of
Interconnect Towers LLC
27762 Antonio Parkway
Suite L1-471
Ladera Ranch, CA 92694

Prepared by:
Environmental Planning Group, LLC
4141 N 32nd St, Suite 102
Phoenix, Arizona 85018

May 2022
Biological Resources Report i EPG
Hwy 74 SW of Lake Pleasant Communication Site May 2022

Table of Contents

Introduction	1
Methods.....	1
Environmental Setting	2
Special-status Species	5
Bats (BLMS)	5
Bald Eagle (BLMS, BCC, and BGEPA)	5
Golden Eagle (BLMS, BCC, and BGEPA)	5
Burrowing Owl (BLMS and BCC)	5
Gilded Flicker (BLMS and BCC)	5
Sonoran Desert Tortoise (BLMS)	8
Monarch Butterfly (ESA Candidate, BLMS)	8
Other Wildlife	9
Migratory Birds	9
Invasive Species and Noxious Weeds.....	11
Potential Effects	11
Ground Disturbance	11
Vegetation	11
Bats	11
Birds	12
Sonoran Desert Tortoise	12
Other Wildlife	13
Invasive Species and Noxious Weeds.....	13
Mitigation	13
Residual Impacts	17
Summary	18
Literature Cited	19

List of Figures

Figure 1 Hwy 74 Lake Pleasant Project Site Location	3
Figure 2 Photo of Project Site Showing Representative Habitat along Proposed New Access Road	4
Figure 3. Photo of Project Site Showing Representative Habitat at Communication Site	4
Figure 4 Photo Showing Example of Shallow Caliche Shelters	9
Figure 5 Hwy 74 Lake Pleasant Sonoran Desert Tortoise Surveys	10

List of Tables

Table 1 Plant Species Recorded in Project Area.....	2
Table 2. Special-Status Species that were Evaluated for Potential Occurrence within the Project Area	6
Table 3. Estimated Overall Project Acreage	11
Table 4. Applicant-Proposed General Measures to Avoid and Minimize Effects to Biological Resources	13

List of Acronyms

AGFD Arizona Game and Fish Department
APM Applicant-Proposed Measures
BCC Birds of Conservation Concern
BGEPA Bald and Golden Eagle Protection Act
BLM Bureau of Land Management
BLMS BLM Sensitive species
BMP Best management practice
EA Environmental Assessment
EPG Environmental Planning Group, LLC
ESA Endangered Species Act
FCR Field Contact Representative
HDMS Heritage Database Management System
ICT Interconnect Towers LLC
IPaC Information for Planning and Consultation
NEPA National Environmental Policy Act
O&M Operations and maintenance
Project Hwy 74 SW of Lake Pleasant Communication Site
USFWS U.S. Fish and Wildlife Service
Biological Resources Report 1 EPG
Hwy 74 SW of Lake Pleasant Communication Site May 2022

INTRODUCTION

Interconnect Towers LLC (ICT) has filed an application for a 30-year federal right-of-way (ROW) grant from the Bureau of Land Management (BLM) for the proposed construction, operation, and maintenance of a new multi-tenant wireless communication site located entirely on BLM lands in Arizona. The proposed Hwy 74 SW of Lake Pleasant Communication Site (the Project) is located within the Phoenix District Office and Hassayampa Field Office of the BLM in northern Maricopa County.

A description of the proposed facilities is provided in the Project's Plan of Development, and in an Environmental Assessment (EA) prepared for the Project and submitted to the BLM to assist in meeting their responsibilities under the National Environmental Policy Act (NEPA). In summary, the Project site would include a multi-tenant wireless communication facility that contains two buildings, each 20 feet by 20 feet, designed to accommodate up to four carrier tenants plus two solar tenants. The communication structure would be 196 feet tall and would be powered by onsite solar panels with backup generators fueled by two propane storage tanks. The Project site would consist of a total of 130 by 150 by 160 by 105 by 50 feet of permanent disturbance (approximately 0.51 acres) surrounded by a chain-link fence.

Access to the site would use North Castle Hot Springs Road from the existing Hwy 74 (West Carefree Highway). The new access road would be approximately 3,013 feet and 1.38 acres. The road would have a 20-foot travel surface with passing areas, all within a 20-foot ROW. The Project is anticipated to create approximately 1.89 acres of total ground disturbance.

This report was prepared for the BLM by Environmental Planning Group, LLC (EPG) to document the results of a biological reconnaissance survey of the Project site, a study area consisting of a ¼-mile buffer around the site itself, an analysis of the potential presence of special-status species and their habitat, and potential impacts of the Project on biological resources to supplement the EA prepared for the Project.

METHODS

Information supporting this review included queries of publicly available information from the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) and Arizona Game and Fish Department (AGFD) Heritage Database Management System (HDMS) online databases and a review of BLM Sensitive species (BLMS). Lists of highly mobile species native to Maricopa County, such as birds and bats, were also reviewed. The IPaC query report is attached to this document.

Some species distribution information provided by the HDMS is based on queries from a database that gathers and displays species information. Public information is displayed at the U.S. Geological Survey quadrangle level. Thus, information derived from the HDMS may not conform to the boundaries of the Project site.

Species were evaluated for potential presence in the study area and on the site itself, based on the habitat preferences and natural history of each species. However, a species may potentially be present in a study area without being affected by the Project if the species is not dependent on Biological Resources Report 2 EPG Hwy 74 SW of Lake Pleasant Communication Site May 2022 resources affected by the Project (e.g., some migratory birds) or is not present in areas disturbed

by the Project (e.g., rare plants with restricted ranges). This report provides additional information where appropriate.

A biological resources survey was conducted for use in this report on May 21 and May 28, 2021. The survey included a pedestrian survey of the entire area that would be affected by ground disturbance, including the communication site and access road. All plant and wildlife species that were observed were recorded, along with a general assessment of habitat conditions, existing sources of disturbance, and features that could be important to wildlife. The survey focused primarily on the presence and location of saguaro cacti that could be impacted by the proposed access road and Sonoran Desert tortoise. The survey was conducted using focused-intuitive methods, following drainages and other features most likely to provide shelter sites for the species within the study area. The survey extended across Hwy 74, as well as to the east of North Castle Hot Springs Road. The total analysis area is approximately 290 acres.

ENVIRONMENTAL SETTING

The Project site is located entirely within the Arizona Upland Subdivision of Sonoran Desertscrub (Brown 1982). The Project site supports relatively high shrub and tree cover, with creosote bush (*Larrea tridentata*), yellow paloverde (*Parkinsonia microphylla*), saguaro (*Carnegiea gigantea*), and ocotillo (*Fouquieria splendens*) as some of the dominant species. Numerous annual forb species are also present.

Plant species recorded during the reconnaissance survey of the site are listed in Table 1. Figure 1 shows the location of the Hwy 74 Lake Pleasant site location. Figure 2 and Figure 3 show representative habitat conditions in the Project site.

Table 1 Plant Species Recorded in Project Area
Common Name Scientific Name Common Name Scientific Name

Table 1 Plant Species Recorded in Project Area			
Common Name	Scientific Name	Common Name	Scientific Name
Triangle Bur Ragweed	<i>Ambrosia deltoidea</i>	Ocotillo	<i>Fouquieria splendens</i>
Cattle saltbush	<i>Atriplex polycarpa</i>	Littleleaf Ratany	<i>Krameria erecta</i>
Desertbroom	<i>Baccharis sarothroides</i>	Creosote Bush	<i>Larrea tridentata</i>
Asian Mustard	<i>Brassica tournefortii</i>	Berlandier's Wolfberry	<i>Lycium berlandieri</i>
Red Brome	<i>Bromus rubens</i>	Graham's Nipple Cactus	<i>Mammillaria grahamii</i>
Fairy Duster	<i>Calliandra eriophylla</i>	Stinknet	<i>Oncosiphon piluliferum</i>
Saguaro	<i>Carnegiea gigantea</i>	Cactus Apple	<i>Opuntia engelmannii</i>
Buck-horn Cholla	<i>Cylindropuntia acanthocarpa</i>	Desert Broomrape	<i>Orobanche cooperi</i>
Teddybear Cholla	<i>Cylindropuntia bigelovii</i>	Yellow Paloverde	<i>Parkinsonia microphylla</i>
Engelmann's Hedgehog Cactus	<i>Echinocereus engelmannii</i>	Velvet Mesquite	<i>Prosopis velutina</i>
Brittlebush	<i>Encelia farinosa</i>	Prickly Russian Thistle	<i>Salsola tragus</i>
Rough Jointfir	<i>Ephedra aspera</i>	Catclaw Acacia	<i>Senegalia greggii</i>
Turpentine Bush	<i>Ericameria laricifolia</i>	London Rocket	<i>Sisymbrium irio</i>
Buckwheat	<i>Eriogonum</i> sp.	Globemallow	<i>Sphaeralcea</i> sp.
Candy Barrel Cactus	<i>Ferocactus wislizenii</i>		

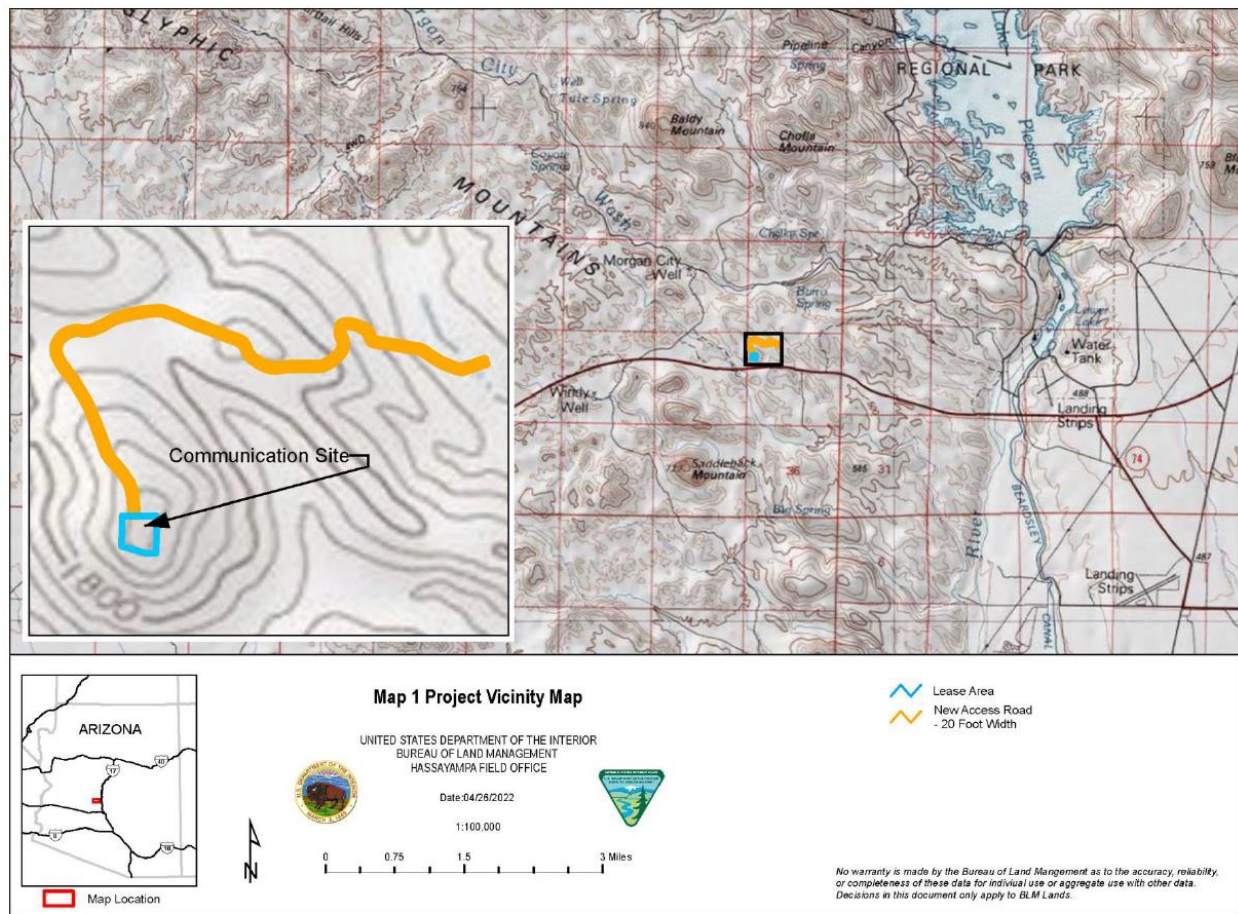


Figure 1 Hwy 74 Lake Pleasant Project Site Location



Figure 2 Photo of Project Site Showing Representative Habitat along Proposed New Access Road



Figure 3. Photo of Project Site Showing Representative Habitat at Communication Site

SPECIAL-STATUS SPECIES

EPG reviewed special-status species for potential to occur in the study area. These species included those listed under the Endangered Species Act (ESA) and Bald and Golden Eagle Protection Act (BGEPA), both administered by the USFWS, and BLMS as determined by the BLM State Director for Arizona. Table 2 shows the results of this review. Additionally, EPG conducted field surveys for biological resources throughout the Project area to support the analyses to be used in the NEPA analysis and preparation of this report. No species listed under the ESA or proposed for ESA listing have any reasonable potential to occur in the Project site. One species that is a candidate for ESA listing is likely to be present.

Bats (BLMS)

Numerous bat species, including several sensitive species (Table 2), are present in the region. Some of these species may forage in the Project site. However, no features likely to provide suitable roost sites for any bat species were observed by EPG biologists within or near the Project area.

Bald Eagle (BLMS, BCC, and BGEPA)

Bald eagles typically occupy areas adjacent to water where large fish and waterbirds provide a food source, although they may also travel long distances and scavenge for food away from water.

A bald eagle may fly over or near the Project area when foraging or moving between bodies of water, but they are not likely to depend on any habitat features or resources present at the site.

Golden Eagle (BLMS, BCC, and BGEPA)

Golden eagles occupy rugged, mountainous habitats with adequate nesting locations and foraging habitat. Typical nest sites are cliff ledges able to support large nests, with minimal human disturbance nearby, and sufficient mammal prey in the region. The species may be present in the vicinity of the Project site to hunt for prey, but nesting habitat is not present due to the proximity of heavily used roadways and a lack of adequate nesting locations.

Burrowing Owl (BLMS and BCC)

Burrowing owls occupy sparsely vegetated desertscrub, present in the Project area, amongst other habitats. Although burrowing owls may construct their own burrows, small mammal burrows are more frequently used. Soils in the Project area are likely unsuitable for use by burrowing owls without pre-existing small mammal burrows, and vegetation cover is higher than typically preferred by the species. No burrowing owls or their sign were observed by surveyors in the Project area.

Gilded Flicker (BLMS and BCC)

Gilded flickers occupy areas that contain adequate nesting cavities, and they are common in Sonoran desertscrub communities where Saguaros offer ample opportunities for the species to nest. Saguaros are abundant adjacent to the Project site, and the species may occur in the Project area.

Table 2. Special-Status Species that were Evaluated for Potential Occurrence within the Project Area

BCC: Birds of Conservation Concern BGEPA: Bald and Golden Eagle Protection Act BLMS: Bureau of Land Management Sensitive			C: ESA Candidate Species E: ESA Endangered Species T: ESA Threatened Species	
Common Name Latin Name	Status	Critical Habitat	Habitat and Notes	Potential Presence in or near the Project area
Mammals				
Spotted Bat <i>Euderma maculatum</i>	BLMS	NA	Desert scrub, riparian woodlands, and mixed conifer forests. Roosts in caves and cliff crevices.	Yes
Western Yellow Bat <i>Lasirurus xanthinus</i>	BLMS	NA	Riparian, cottonwood-willow, habitat, with nearby palm trees for roosting.	Yes
Pale Townsend's Big-eared Bat <i>Corynorhinus (=Plecotus) townsendii</i>	BLMS	NA	Occurs in desert scrub into montane coniferous forest. Day roosts in caves or mine tunnels, night roosts in buildings.	Yes
Greater Western Bonneted Bat <i>Eumops perotis</i>	BLMS	NA	Sonoran desertscrub communities near cliffs, and rugged rocky canyons. Roosts in rock crevices.	Yes
California Leaf-nosed Bat <i>Marrotus californicus</i>	BLMS	NA	Occurs in Sonoran desertscrub. Roosts in caves, mines, and rock shelters.	Yes
Cave Myotis <i>Myotis velifer</i>	BLMS	NA	Sonoran desertscrub communities. Roosts in caves, tunnels, mineshafts, under bridges, and sometimes in buildings.	Yes
Arizona Myotis <i>Myotis occultus</i>	BLMS	NA	Occupies habitats adjacent to permanent water sources in desertscrub through montane coniferous forest.	Yes
Birds				
California Least Tern <i>Sterna antillarum browni</i>	E	None	Large bodies of water, sandy beaches, and gravel bars.	No suitable habitat present in Project area.
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i>	E	Outside of the Project area	Dense riparian trees and shrub communities near rivers, streams, lakes and reservoirs	No suitable habitat present in Project area.
Bald Eagle – Winter Population <i>Haliaeetus leucocephalus</i>	BCC, BGEPA	NA	Common in winter along water courses and reservoirs. Nest sites are often clumps of mature deciduous trees in riparian areas.	Yes
Golden Eagle <i>Aquila chrysaetos</i>	BCC, BGEPA	NA	Mountain cliffs and canyons. Hunts in open habitats.	Yes
Yellow-billed Cuckoo <i>Coccyzus americanus</i>	T	Outside of the Project area	Mature riparian woodlands.	No suitable habitat present in Project area.
Gilded Flicker <i>Colaptes chrysoides</i>	BCC, BLMS	NA	Sonoran desertscrub communities and riparian woodlands with plants large enough for nest sites.	Yes
Burrowing Owl <i>Athene cunicularia</i>	BCC, BLMS	NA	Dry, open short-grass habitats.	Yes

Table 2. Special-Status Species that were Evaluated for Potential Occurrence within the Project Area

BCC: Birds of Conservation Concern BGEPA: Bald and Golden Eagle Protection Act BLMS: Bureau of Land Management Sensitive			C: ESA Candidate Species E: ESA Endangered Species T: ESA Threatened Species	
Common Name Latin Name	Status	Critical Habitat	Habitat and Notes	Potential Presence in or near the Project area
Reptiles				
Sonoran Desert Tortoise <i>Gopherus morafkai</i>	BLMS	NA	Upland Sonoran desertscrub in rocky bajadas, hillsides, mountain slopes, and canyons.	Yes
Sonora Mud Turtle <i>Kinosternon sonoriense</i>	BLMS	NA	Rocky streams, creeks, rivers, ponds, cattle tanks, and ditches.	No suitable habitat present in Project area.
Amphibians				
Lowland Leopard Frog <i>Lithobates yavapaiensis</i>	BLMS	NA	Large rivers, streams, cienegas, manmade structures, and ditches from Sonoran desertscrub to piñon-juniper woodlands.	No suitable habitat present in Project area.
Northern Leopard Frog <i>Lithobates pipiens</i>	BLMS	NA	Wetland habitats including marshes, bogs, and vegetated ponds.	Project area is outside of known distribution.
Arizona Toad <i>Anaxyrus microscaphus</i>	BLMS	NA	Shallow, flowing, permanent water over sand or rocky substrates, typically in river canyons or foothill streams.	Project area is outside of known distribution.
Fish				
Gila Topminnow <i>Poeciliopsis occidentalis</i>	E	None	Shallow water with dense vegetation in streams and cienegas.	No suitable habitat within Project area.
Invertebrates				
Monarch Butterfly <i>Danaus plexippus plexippus</i>	C, BLMS	NA	Plant communities with suitable species of milkweeds and nectar sources.	Yes

Sonoran Desert Tortoise (BLMS)

The Sonoran Desert tortoise occupies rugged, steeply inclined, desert hills and mountains as well as caliche caves in desert washes. The Project site is located entirely within BLM-mapped Sonoran Desert tortoise habitat. Habitat categories are ranked, from Category I (most important to Sonoran Desert tortoise conservation, highest protection in management decisions) to Category III (lower importance to Sonoran Desert tortoise conservation, lower level of protection) (BLM 1988).

The mapped habitat categories were created at a state-wide scale and do not completely substitute for detailed site-specific information. The reconnaissance survey focused on this species, recording the quality of Sonoran Desert tortoise habitat and whether any individuals or signs of the species were found. The survey results may allow the BLM to determine the potential impacts of the Project and the appropriate level of mitigation that may be required as a condition of a ROW grant.

The entire Project area is within the Black Canyon Category II habitat area, near the northern edge of the species' range in that part of Arizona. Hwy 74 forms a partial barrier and mortality risk for connectivity with Sonoran Desert tortoise habitat to the south. The entire Project site is within suitable habitat for the species. No Sonoran Desert tortoises or any sign were found within the boundary of the Project site during the May reconnaissance survey. Figure 5 shows the survey tracks and survey area.

Along with suitable forage plants, adequate shelter sites are a requirement of the species. Shelter sites can include boulder piles, burrows, and caliche caves. No boulder piles or rock features that could provide shelter are present in or adjacent to the Project site. The proposed access road and Project site are set on relatively level ground with rocky soils, generally unsuitable for burrows. Several caliche caves that could be used as shelter sites were found along the shoulder of the hill, south of Hwy 74 and the proposed tower site (Figure 4). These features would not be directly affected by Project activities but indicate that at least some potential shelter sites are present, and the Project site has the potential to support Sonoran Desert tortoises.

Monarch Butterfly (ESA Candidate, BLMS)

Monarch butterflies require the presence of suitable milkweed species to forage from and lay eggs on. Milkweed is not common in the general vicinity of the Project site, or elsewhere in the Sonoran Desert outside of riparian areas. Monarchs are uncommon but present in the region, primarily during migration (Morris et al. 2015). Because monarch butterfly food plants are not likely to occur in the Project site, suitable habitat for the species is apparently absent.



Figure 4 Photo Showing Example of Shallow Caliche Shelters

OTHER WILDLIFE

No aquatic habitat is present in the Project area, and no fish or other aquatic wildlife are present. Terrestrial wildlife that may be present are typical of the Sonoran Desert region. Vertebrate species likely to be present in the Project area include an assemblage most diverse in reptiles, small mammals, and migratory birds (discussed separately).

Relatively few species of large mammals are present in the region, particularly away from riparian corridors. Coyotes (*Canis latrans*), mule deer (*Odocoileus hemionus*), bobcats (*Lynx rufus*), and mountain lions (*Puma concolor*) are present in desert mountains, highly mobile, and may occur in the Project area. No potential bat roost sites are known to be present in the Project area, although some solitary bats can use cavities in saguaros.

MIGRATORY BIRDS

Many species of birds migrate through the region, but migration is heavily concentrated around riparian corridors, urban areas, and other sources of water, food, and shelter that can be used by migrating birds. The New River and Agua Fria River, as well as Lake Pleasant, provide important resources to migrating birds, although no riparian or aquatic habitat is present near the Project site.

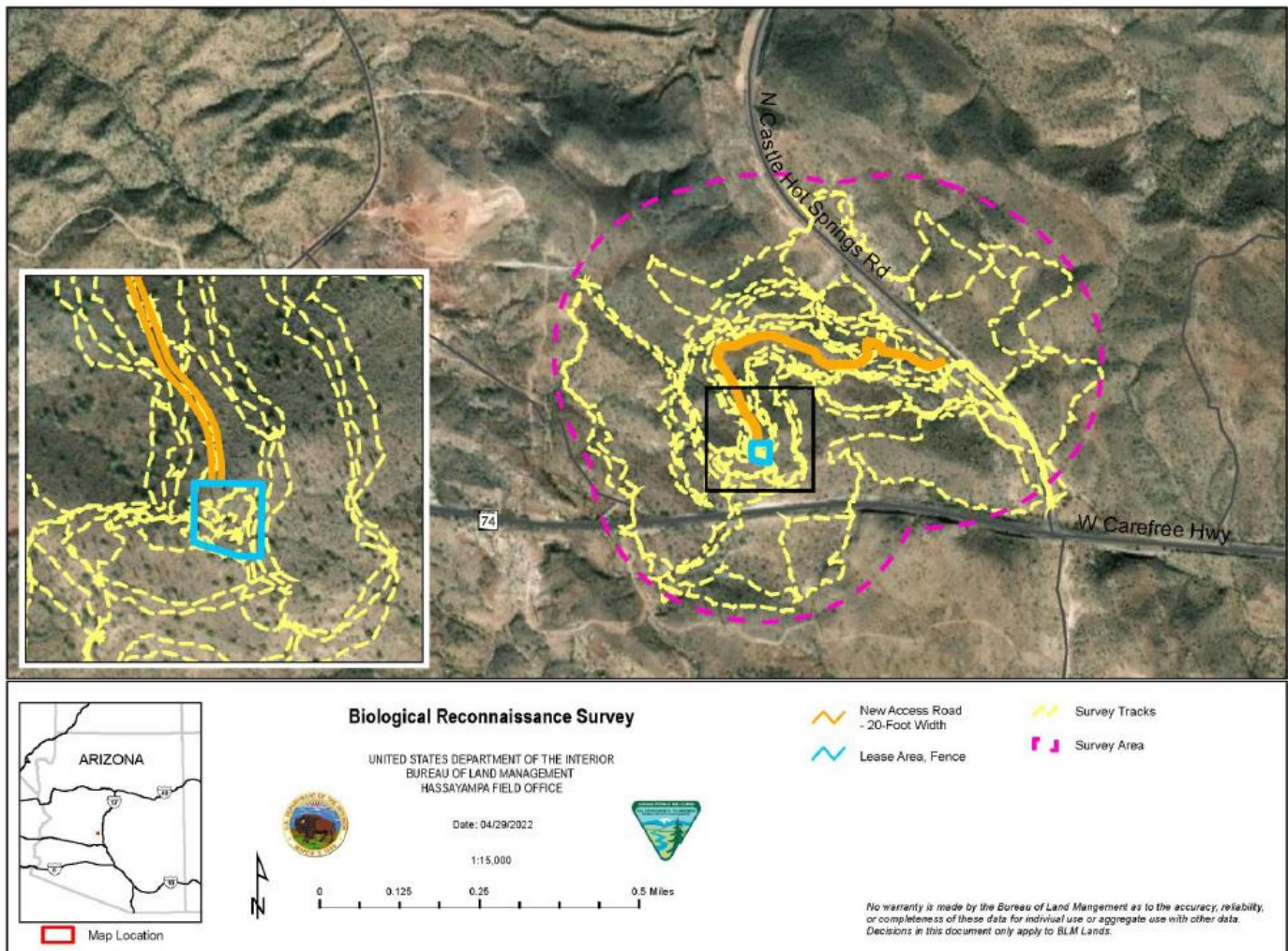


Figure 5 Hwy 74 Lake Pleasant Sonoran Desert Tortoise Surveys

INVASIVE SPECIES AND NOXIOUS WEEDS

The Project site supports a relatively intact, native-dominated vegetation community. Stinknet (*Oncosiphon piluliferum*) is present in the survey area and was recently listed as noxious by the Arizona Department of Agriculture (Table 1). No Stinknet plants were observed within the boundaries of the Project site itself.

POTENTIAL EFFECTS

Ground Disturbance.

Table 3 provides estimates of ground disturbance based on the preliminary site design prepared for the Project's EA and Plan of Development.

Table 3. Estimated Overall Project Acreage		
Project Feature	Area Dimension (feet)	New Disturbance (acres)
Lease Area	130 by 150 by 160 by 105 by 50	0.51
Proposed New Access Road with 20-foot ROW	3,013 by 20	1.38
Total Permanent Disturbance		1.89

Vegetation

Vegetation would be removed to allow construction and operation of the Project, as estimated in Table 3. Permanent disturbance is assumed to represent a loss of vegetation for the life of the Project, in addition to the time required for reclamation following decommissioning. Based on the preliminary site design prepared for the Project's EA, construction of the Project would result in approximately 1.89 acres of permanent vegetation loss. Additionally, noxious weeds and other invasive plants often spread as a result of ground-disturbing activities. This can contribute to impacts to native vegetation and can result in effects extending beyond the boundaries of the Project site. Cleaning vehicles prior to entering the Project area will serve to reduce the risk of spreading noxious weed infestations. Several saguaros are present within the boundary of the Project site, and removal or transplant of some will be necessary.

Bats

Ground-disturbing activities do not typically create a risk for adult bats unless roost sites are disturbed. No roost sites are known or anticipated in areas to be affected by ground disturbance by the Project. Loss of vegetation that may occur during the construction process may cause permanent loss of foraging habitat, although many bat species in the Sonoran Desert concentrate foraging activities.

Birds

Ground-disturbing activities do not typically create a risk for most adult birds. However, active nests (containing eggs or young) are at risk during vegetation removal. Although adults often avoid vehicles, burrowing owls may take shelter in their nests underground when alarmed, which places them at unique risk of harm during ground-disturbing activities. Although there is some potential for burrowing owls to be present, rocky soils in the Project area indicate that the overall habitat suitability is low. Large saguaros will be removed during construction. Transplant of the largest saguaros may not be feasible. Although those saguaros would be replaced with smaller saguaros, there would be a temporary but minor loss of large saguaros that can provide nest cavities for birds, including the BLMS gilded flicker.

Elevated structures, including communications towers, transmission lines, tall buildings, wind turbines, and other manmade features, can create collision risk to migratory birds. The risk differs among structure types, individual structures, and the locations of those structures. However, some general patterns are accepted as strongly influencing collision risk (Avian Power Line Interaction Committee 2012), including the following most relevant to communications structures:

- ▢ Lighted structures affect bird navigation at night and increase collision risk. Steady lights create a higher risk than flashing lights.
- ▢ Taller structures create a higher collision risk than shorter structures in comparable settings.

- Structures constructed in migratory flyways create a relatively high collision risk.
 - Structures constructed in areas of concentrated bird use, such as between roost and foraging sites, create a relatively high collision risk.
 - Structures with guywires create a higher collision risk than self-supporting structures.
- The communication structures proposed for the Project would be self-supporting structures, under 200 feet tall, and would not require lighting. No major migratory bird flyways or areas with concentrated activity are present near the site. The collision risk associated with the site is likely to be very low.

Sonoran Desert Tortoise

Ground-disturbing activities place terrestrial wildlife at risk of disturbance, injury, or death. Burrowing species are at the greatest risk, as avoidance of construction activities is unlikely. Although no suitable burrows are present within the Project site, individual Sonoran Desert tortoises could move through the Project area during construction and would be at risk of harm from vehicles. Approximately 1.89 acres of BLM Category II Sonoran Desert tortoise habitat would be subject to permanent disturbance.

During construction, implementation of standard mitigation measures for the species (Arizona Interagency Desert Tortoise Team 2008, AGFD 2014) will serve to reduce the risk of harm to individual Sonoran Desert tortoises.

Other Wildlife

Ground-disturbing activities place terrestrial wildlife at risk of disturbance, injury, or death. Most larger mammals would avoid construction activities and would not be at risk of direct harm. Ground-disturbing activities associated with the Project site are anticipated to cause temporary and permanent loss of wildlife habitat. Temporary disturbance would be allowed to reclaim naturally.

However, recovery of natural vegetation in arid systems such as the Sonoran Desert is slow, and this habitat would not likely recover to its pre-disturbance condition for several decades. Vegetation is likely to recover in those areas but would present an altered structure and species composition during early stages of succession, potentially providing different or fewer resources to wildlife.

During construction of the Project, short-term noise and disturbance associated with human presence would occur and could cause some species to avoid the general vicinity of construction activities. However, these activities would largely be conducted around existing infrastructure (roads), where some level of human activity is already ongoing. Human activity can also attract coyotes and common ravens, particularly if food waste is not properly contained. These species are predators on sensitive wildlife species and providing supplementary nutrition can indirectly increase the predation risk for those sensitive species.

Invasive Species and Noxious Weeds

Ground disturbance can create conditions that favor invasive plant species over native vegetation. Additionally, weed seeds can be transported into work areas in soils and rock material, in or on vehicles and equipment that are not properly cleaned, or in seed mixes that are not weed-free. Ground disturbance in areas with existing weed populations can allow those populations to expand and further affect native vegetation. Transport of weed seeds into areas that are not infested can allow the establishment of new weed populations.

Mitigation

Table 4 lists Applicant-Proposed Measures (APM), which are mitigation measures that will be implemented as appropriate to avoid or minimize impacts to biological resources. APMs include measures focused on protecting migratory birds and Sonoran Desert tortoises, as well as preventing the spread of noxious weeds.

Table 4. Applicant-Proposed General Measures to Avoid and Minimize Effects to Biological Resources	
Measure	Description
GM-1	Areas of allowed surface disturbance during construction and operations and maintenance (O&M) would be delineated and marked. All surface disturbances during construction and O&M would be limited to the minimum area possible and any disturbance outside of that area restricted. This restriction would apply to the communication site and road alignment, as well as parking areas.
GM-2	Vehicle speeds would be limited to 15 miles per hour on the proposed access road during construction and operation and maintenance. Small signs posting this speed limit would be placed at intervals along the road.
GM-3	A number of invasive plant species are known to occur in the region, and control measures would be implemented during construction and to limit the further spread of these species. Specific

Table 4. Applicant-Proposed General Measures to Avoid and Minimize Effects to Biological Resources

Measure	Description
	<p>requirements would be further detailed in BLM's final conditions of approval, but would likely include the following Best Management Practices (BMP):</p> <ul style="list-style-type: none">Any noxious weed infestations within and immediately adjacent to the site boundaries (within 20 feet) would be treated according to the following methods:<ul style="list-style-type: none">Weeds would be removed prior to construction.Weeds would be removed by hand, bagged, and disposed of off-site at a landfill.Although weed removal would be primarily focused on infestations within the communication site and along the fence, obvious infestations starting from within the communication site and leading outside the fence would be removed.Weed removal would be performed by qualified staff trained to recognize weeds.Vehicles and equipment would be cleaned prior to arrival on the work site.Soil disturbance would be minimized to include only those areas specifically required for construction and operation and maintenance of the proposed access road.
GM-4	<p>Water quality control measures would be implemented to minimize sediment transport from the proposed Project and to minimize risks associated with contaminants and other impacts to water quality and soils. Specific requirements would be further detailed in BLM's final conditions of approval, but would likely include the following BMPs:</p> <ul style="list-style-type: none">Erosion and sediment loss within disturbed areas would be controlled through BMPs such as access roads being constructed with a 2 percent outslope to promote gentle sheeting of rainwater. Occasional (every 10 years) road maintenance where the natural rock and soil was determined to require these measures would also likely occur. Construction equipment staging and access and disposal or temporary placement of excess fill within drainages would be prohibited.Whenever possible, grading would be minimized to limit soil exposure.Equipment would be inspected daily to ensure proper functioning condition and to minimize the potential for fluid leaks. Fluids would be stored in appropriate containers on pallets, inside rubber berms, indoors, or under a cover, as would other materials that could impact storm water runoff. Equipment maintenance activities would be prohibited within the Project area.A hazardous fluid spill prevention plan would be implemented during construction and operation and maintenance and would require that equipment operators and other personnel be informed of specific measures to be implemented in the event of a detected fluid leak, including the use of spill containment material and equipment, carried with each vehicle.Approved portable toilets would be used during construction activity and would be regularly maintained in a sanitary condition.
GM-5	Workers would be prohibited from bringing pets to the Project Area.
GM-6	All drill holes and other voids in the earth that could entrap wildlife shall be backfilled as soon as practicable or covered if left overnight. Holes would be inspected for trapped wildlife prior to filling. During drilling for geotechnical analysis, all drill holes shall be filled immediately following the drilling and analysis processes, and prior to moving to the next boring location.
GM-7	Any earthen berms created during road building or other activities shall be rounded off so as not to inhibit travel by desert tortoises and other wildlife.
Applicant-Proposed Desert Tortoise Avoidance and Minimization Measures	
DT-1	The applicant would designate a Field Contact Representative (FCR) who would be responsible for overseeing compliance with protective stipulations for the desert tortoise and for coordination on compliance with the BLM. The FCR would be on-site during all ground-disturbing construction and O&M activities and would have the authority to halt all activities that are in violation of protective measures. The FCR would have a copy of all measures when ground-disturbing construction or O&M

Table 4. Applicant-Proposed General Measures to Avoid and Minimize Effects to Biological Resources

Measure	Description
	activities are being conducted in the Project area. The FCR may be a crew chief or field supervisor, a Project manager, any other employee of the Applicant, or a contracted biologist.
DT-2	The Applicant would designate "qualified biologists" to oversee and implement desert tortoise-specific measures. A "qualified biologist" is defined as a trained wildlife biologist who is knowledgeable about the biology of desert tortoises, their habitat requirements, identification of their sign, and mitigation techniques and survey procedures for the species. The Applicant would submit the name of proposed qualified biologists to the BLM for review and approval at least 30 days prior to the onset of ground-disturbing construction activities. Qualified biologists would be named on a Scientific Collecting Permit issued by AGFD, authorizing handling and relocation of desert tortoises at risk of injury within the Project area.
DT-3	All construction and O&M personnel would participate in a desert tortoise education program prior to working on site. The applicant would be responsible for ensuring that the education program is developed and presented to the appropriate personnel. The program would cover the following topics at a minimum: <ul style="list-style-type: none"> • Distribution of the desert tortoise; • General behavior and ecology of the desert tortoise; • Sensitivity to human activities; • Legal protection; • Penalties for violations of state laws and conditions of the BLM's authorization; • Reporting requirements; and • Protective measures to be implemented.
DT-4	Prior to construction of new access roads, a qualified biologist would participate in micro-siting of the access route and would flag the proposed route to avoid burrows where feasible and to minimize disturbance of vegetation.
DT-5	Prior to initial grubbing and grading of the access road, a preconstruction clearance survey would be conducted to locate and remove desert tortoises found in harm's way. The survey would be conducted by a qualified biologist within 24 hours of the onset of initial grubbing and grading. Pre-construction clearance surveys would be conducted in accordance with current AGFD guidelines. Burrows that cannot be avoided would be excavated during the clearance survey. Relocation would occur at the discretion of the qualified biologist, but desert tortoises would not be moved outside their home range (i.e., more than 1,000 feet [305 meters]).
DT-6	<p>A qualified biologist would be on site to monitor all ground-disturbing construction activities that are outside any tortoise fenced areas. If a desert tortoise is observed, and may be adversely affected by activities, ground-disturbing activities would be stopped until the biologist has verified that the individual has moved from harm's way under its own power. The determination of which activities may adversely affect the desert tortoise would be made in the field by the qualified biologist. qualified biologist would monitor the desert tortoise until it is confirmed to be out of harm's way. If the qualified biologist determines that the desert tortoise will not passively relocate (i.e., move from harm's way under its own power within a reasonable period of time), the qualified biologist may actively relocate the individual out of harm's way.</p> <p>Potential handling of desert tortoises for active relocation would not occur until a qualified biologist is approved by the BLM and AGFD. Active relocation of desert tortoises from harm's way would be conducted in accordance with the most current guidance from the AGFD. The qualified biologist would be allowed some judgment and discretion to ensure that the survival of the desert tortoise is likely.</p> <p>Desert tortoises actively moved from harm's way would be marked for future identification in the event that a dead desert tortoise is found later within the Project area. An identification number using the acrylic paint/epoxy covering technique would be placed on the fourth left costal scute. In handling desert tortoises, the qualified biologist would follow the most current guidance from the AGFD. If a desert tortoise voids its bladder during handling, the qualified biologist would rehydrate the individual in accordance the most current guidance from the AGFD.</p>

Table 4. Applicant-Proposed General Measures to Avoid and Minimize Effects to Biological Resources	
Measure	Description
	<p>The qualified biologist would maintain a record of all desert tortoises handled. This information would include the following for each desert tortoise:</p> <ul style="list-style-type: none"> • The locations (narrative and maps) and dates of observations; • General condition and health, including injuries and state of healing and whether the animals voided their bladders; • The location from which the animal was collected and the location in which it was released; • Diagnostic markings (i.e., identification numbers or marked lateral scutes); and • Photographs of each handled desert tortoise as described above.
DT-7	<p>Prior to, and during all construction activities, all equipment storage and parking would be confined to the maximum extent possible to previously disturbed areas or fenced communication site cleared of desert tortoises.</p> <p>No heavy equipment would be moved into the fenced area until the area is clear of desert tortoises. A qualified biologist would walk in front of equipment during the initial site entry to ensure that no desert tortoises or their burrows are harmed.</p> <p>Workers would inspect for desert tortoises under a vehicle prior to moving it. If a desert tortoise is found under a vehicle, a qualified biologist would be contacted to monitor the individual until it has left of its own accord. If the desert tortoise must be moved, the qualified biologist would ensure that the desert tortoise is relocated in accordance with the most current guidance from the AGFD. All observations of desert tortoises and their sign would be reported to the qualified biologist as soon as possible.</p>
DT-8	<p>All trash and food items would be promptly contained within closed, wildlife-proof containers. These would be regularly removed from the Project area to reduce the attractiveness of the area to common ravens, coyotes, and other predators of the desert tortoise.</p>
DT-9	<p>No later than 90 days after completion of construction or termination of construction activities, the FCR and qualified biologist would prepare a report for the BLM documenting the effectiveness and practicality of the avoidance and minimization measures, the number of desert tortoises excavated from burrows, the number of desert tortoises moved, the number of desert tortoises killed or injured, and the specific information for each desert tortoise as described previously. The report would address compliance with all avoidance and minimization measures. The report may make recommendations for modifying the measures to enhance protection of the desert tortoise or to make it more workable during operation and maintenance activities. The report would provide an estimate of the actual acreage of desert tortoise habitat disturbed by construction.</p>
DT-10	<p>Upon locating a dead or injured desert tortoise during construction or operation and maintenance, the Applicant would immediately notify the BLM. The information provided would include the date and time of the finding or incident (if known), location of the carcass or injured animal, a photograph, cause of death (if known), and other pertinent information.</p> <p>An injured animal would be transported to a qualified veterinarian for treatment at the expense of the Applicant. If an injured animal recovers, the AGFD would be contacted for final disposition of the animal.</p> <p>The BLM would endeavor to place the remains of intact desert tortoise carcasses with educational or research institutions holding the appropriate state and federal permits according to their instructions. If such institutions are not available or the animal's remains are in poor condition, the information noted above would be obtained and the carcass left in place. If left in place and sufficient pieces are available, the carcass would be marked to ensure that it is not reported again. Arrangements for disposition to a museum would be made prior to removal of the carcass from the field.</p>
Applicant Proposed Migratory Bird Avoidance and Minimization Measures	
MB-1	<p>To the extent possible, construction would occur outside the typical avian breeding season (February 15 through June 30). If construction must occur during the general avian breeding season, a preconstruction nest survey would be conducted within the Project area and a 500-foot buffer by a biological monitor no more than three days prior to the start of construction in any given area of the</p>

Table 4. Applicant-Proposed General Measures to Avoid and Minimize Effects to Biological Resources	
Measure	Description
	Project area. Construction crews would coordinate with the biological monitor at least three days prior to the start of construction activity in a given area to ensure that the construction area has been adequately surveyed. If no active nests are discovered, construction may proceed. If active nests are observed that could be disturbed by construction activities, these nests and an appropriately sized buffer would be avoided until the young have fledged and/or the monitor determines that no substantial impacts are anticipated to the nesting birds or their young. The biological monitor would be responsible for coordinating with USFWS to determine if construction activities could disturb an active nest, the appropriately sized buffer to avoid active nests, and when nests are no longer active. If construction ceases for 5 or more consecutive days during the nesting season, repeat nesting bird surveys would be required to ensure new nesting locations have not been established within the impact area and the defined buffers.
MB-2	<p>Construction-generated noise may result in disturbance to nesting migratory birds. The following measures would be incorporate to minimize noise generated from construction activities:</p> <ul style="list-style-type: none"> • Heavy equipment would be repaired as far as practical from habitats where nesting birds may be present. The biological monitor would determine where heavy equipment repair may take place onsite during the nesting season. • Construction equipment, including generators and compressors, would be equipped with manufacturers' standard noise-control devices or better (e.g., mufflers, acoustical lagging, and/or engine enclosures). • The construction contractor would maintain all construction vehicles and equipment in proper operating condition and provide mufflers on all equipment.
Applicant-Proposed Saguaro Avoidance and Minimization Measures	
S-1	Saguaros will be avoided to the extent practicable, and Saguaros that cannot be avoided will be replaced as follows. The access road will be designed and constructed to avoid all Saguaros. Small saguaros within the boundaries of the cellular facility will be transplanted outside the boundaries of the work area. Large saguaros (over 10 feet tall) within the boundaries of the cellular facility will be transplanted if feasible or replaced with two saguaros approximately 6 feet tall. All transplanted saguaros will be watered and monitored for 5 years after construction. Transplanted Saguaros that die during the monitoring period will be replaced.

Residual Impacts

Construction of the Project would cause the permanent loss of 1.89 acres of wildlife habitat. Special-status and other wildlife species within the Project area would be at risk of disturbance, injury, or death during ground-disturbing activities. Some collision risk for birds would be created by the Project, and any burrowing owls or active bird nests not detected by preconstruction surveys would be at risk during ground-disturbing activities. Additionally, some risk of creating conditions favorable to invasive plants would occur as a result of the Project, as would some risk of transport of weed seeds. However, implementation of the APMs listed in Table 4 will serve to ensure that ground disturbance is limited to the amount necessary to construct the Project and that the spread of noxious weeds and potential impacts to wildlife are avoided or minimized to the extent feasible.

SUMMARY

Up to 13 BLMS and BGEPA-listed species may regularly or occasionally occur in the Project area. Ground-disturbing activities resulting from the Project may remove habitat for the sensitive species as estimated in Table 3 or potentially injure individuals that escape into hidden burrows. Tall structures may create a collision risk for avian species but would not likely increase collision risk over the baseline conditions that include an existing highway and power lines adjacent to the Project site location.

LITERATURE CITED

Arizona Game and Fish Department. 2014. Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects. 1 p.

Arizona Interagency Desert Tortoise Team. 2008. Recommended Standard Mitigation Measures for Projects in Sonoran Desert Tortoise Habitat. 7 pp.

Avian Power Line Interaction Committee. 2012. Reducing Avian Collisions with Power Lines: The State of the Art in 2012. Edison Electric Institute and APLIC. Washington, D.C.

Brown, D. E. 1982. Desert Plants: Biotic Communities of the American Southwest-United States and Mexico. University of Arizona for the Boyce Thompson Southwestern Arboretum, Superior, Arizona. 342 pp.

Bureau of Land Management (BLM). 1988. Desert Tortoise Habitat Management on the Public Lands: A Range wide Plan. U.S. Department of Interior, BLM. Washington, D.C. 36 pp.

Morris, G.M., C. Kline, and S.M. Morris. 2015. Status of *Danaus plexippus* population in Arizona. Journal of the Lepidopterists' Society 69 (2): 91-107.

Appendix C – Applicant-Proposed Mitigation Measures

**TABLE D-1
APPLICANT PROPOSED MITIGATION**

Measure Number	Mitigation
Applicant-Proposed Water Quality Control Measures	
WQ-1	Erosion and sediment loss within disturbed areas would be controlled through Best Management Practices (BMPs) such as erosion-control blankets or mats, gravel bags, silt fencing, stabilized construction entrances, and scheduling management. Construction equipment staging and access and disposal or temporary placement of excess fill within drainages would be prohibited.
WQ-2	Slopes would be protected with straw wattles or blankets. All straw wattles, bales, or hay bales would be certified weed-free.
WQ-3	Whenever possible, grading would be minimized to limit soil exposure. Finished areas would be allowed to revegetate naturally.
WQ-4	BMPs would be regularly inspected and repaired. Damaged or worn silt fences, straw wattles, gravel bags, and other BMPs would be replaced prior to rain events.
WQ-5	Equipment would be inspected daily to ensure proper functioning condition and to minimize potential for fluid leaks. Fluids would be stored in appropriate containers on pallets, inside rubber berms, indoors, or under a cover, as would other materials that could impact storm water runoff. Vehicle Equipment maintenance activities would be prohibited within the Project area.
WQ-6	A hazardous fluid spill prevention plan would be implemented during construction, and would require that equipment operators and other personnel be informed of specific measures to be implemented in the event of a detected fluid leak, including the use of spill containment material and equipment, carried with each vehicle.
WQ-7	Approved portable toilets would be utilized during construction activity and would be regularly maintained in a sanitary condition.
Applicant-Proposed Dust Control Measures During Construction	
AQ-1	Vehicle speeds during construction would be limited to fifteen miles per hour.
Applicant-Proposed Measures to Minimize Effects to Visual Resources	
VRM-1	In general, materials and surface treatments to repeat the forms, line, color, and texture of the surrounding landscape will be selected. Non-reflective materials, coatings, and paint will be used.
VRM-2	Galvanized steel on structures would be allowed to dull through exposure and slightly darken naturally to minimize glare.
VRM-3	The exposed surfaces of the buildings, propane tanks, and other components may be painted a color that matches the color of the characteristic landscape at BLM's request.
VRM-4	BLM color chart CC-001 will be used as a starting guide for color selection. Colors should be one or two shades darker than the landscape.
VRM-5	Significantly sized, exposed concrete pads, walkways, and other concrete surfaces may be "colorized" to match the surrounding landscape if visible and requested by the BLM.
VRM-6	Below-ground electric service will be used where feasible.
VRM-7	Exterior lighting will be shielded, downward focused, and activated by motion detectors.
VRM-8	Cuts and fills will be avoided, if possible, when upgrading existing roads and constructing new road segments. If aggregate is required, a color that matches the surrounding landscape will be selected.
VRM-9	Early reclamation and prompt restoration of areas no longer needed after construction will be promoted. Disturbed areas will be recontoured if necessary to approximate natural slopes.
Applicant-Proposed Spill Prevention Measures During Operation	
HAZ-1	Propane tanks and generators would be mounted on concrete-bermed foundations to contain spills or leaks that could occur during operation, fuel replenishment, and maintenance.
HAZ-2	All construction debris and waste materials shall be removed from the site and disposed of at an approved facility in accordance with applicable regulations.
Applicant-Proposed General Measures to Avoid and Minimize Effects to Biological Resources	
GM-1	Areas of allowed surface disturbance during construction and operations and management (O&M) would be delineated and marked. All surface disturbances during construction and O&M would be limited to the minimum area possible and any disturbance outside of that area restricted. This restriction would apply to the communication site and road alignment, as well as parking areas.

TABLE D-1	
APPLICANT PROPOSED MITIGATION	
Measure Number	Mitigation
GM-2	Vehicle speeds would be limited to fifteen miles per hour on the proposed access road during construction, operation, and maintenance. Small signs posting this speed limit would be placed at intervals along the road.
GM-3	<p>A number of invasive plant species are known to occur in the region, and control measures would be implemented during construction and to limit the further spread of these species. Specific requirements would be further detailed in BLM's final conditions of approval, but would likely include the following BMPs:</p> <ul style="list-style-type: none"> Any noxious weed infestations within and immediately adjacent to the site boundaries (within twenty feet) would be treated according to the following methods: <ul style="list-style-type: none"> Weeds would be removed prior to construction. Weeds would be removed by hand, bagged, and disposed of off-site at a landfill. Although weed removal would be primarily focused on infestations within the communication site and along the fence, obvious infestations starting from within the communication site and leading outside the fence would be removed. Weed removal would be performed by qualified staff trained to recognize weeds. Vehicles and equipment would be cleaned prior to arrival on the work site. Soil disturbance would be minimized to include only those areas specifically required for construction and operation and maintenance of the proposed access road.
GM-4	<p>Water quality control measures would be implemented to minimize sediment transport from the proposed Project and to minimize risks associated with contaminants and other impacts to water quality and soils. Specific requirements would be further detailed in BLM's final conditions of approval, but would likely include the following BMPs:</p> <ul style="list-style-type: none"> Erosion and sediment loss within disturbed areas would be controlled through BMPs such as the access road being constructed with a 2 percent out slope to promote gentle sheeting of rainwater. Occasional (every 10 years) road maintenance where the natural rock and soil was determined to require these measures would also likely occur. Construction equipment staging and access and disposal or temporary placement of excess fill within drainages would be prohibited. Whenever possible, grading would be minimized to limit soil exposure. Equipment would be inspected daily to ensure proper functioning condition and to minimize the potential for fluid leaks. Fluids would be stored in appropriate containers on pallets, inside rubber berms, indoors, or under a cover, as would other materials that could impact storm water runoff. Equipment maintenance activities would be prohibited within the Project area. A hazardous fluid spill prevention plan would be implemented during construction, operation, and maintenance and would require that equipment operators and other personnel be informed of specific measures to be implemented in the event of a detected fluid leak, including the use of spill containment material and equipment, carried with each vehicle. Approved portable toilets would be used during construction activity and would be regularly maintained in a sanitary condition.
GM-5	Workers would be prohibited from bringing pets to the Project Area.
GM-6	All drill holes and other voids in the earth that could entrap wildlife shall be backfilled as soon as practicable or covered if left overnight. Holes would be inspected for trapped wildlife prior to filling. During drilling for geotechnical analysis, all drill holes shall be filled immediately following the drilling and analysis processes, and prior to moving to the next boring location.
GM-7	Any earthen berms created during road building or other activities shall be rounded off so as not to inhibit travel by desert tortoises and other wildlife.

**TABLE D-1
APPLICANT PROPOSED MITIGATION**

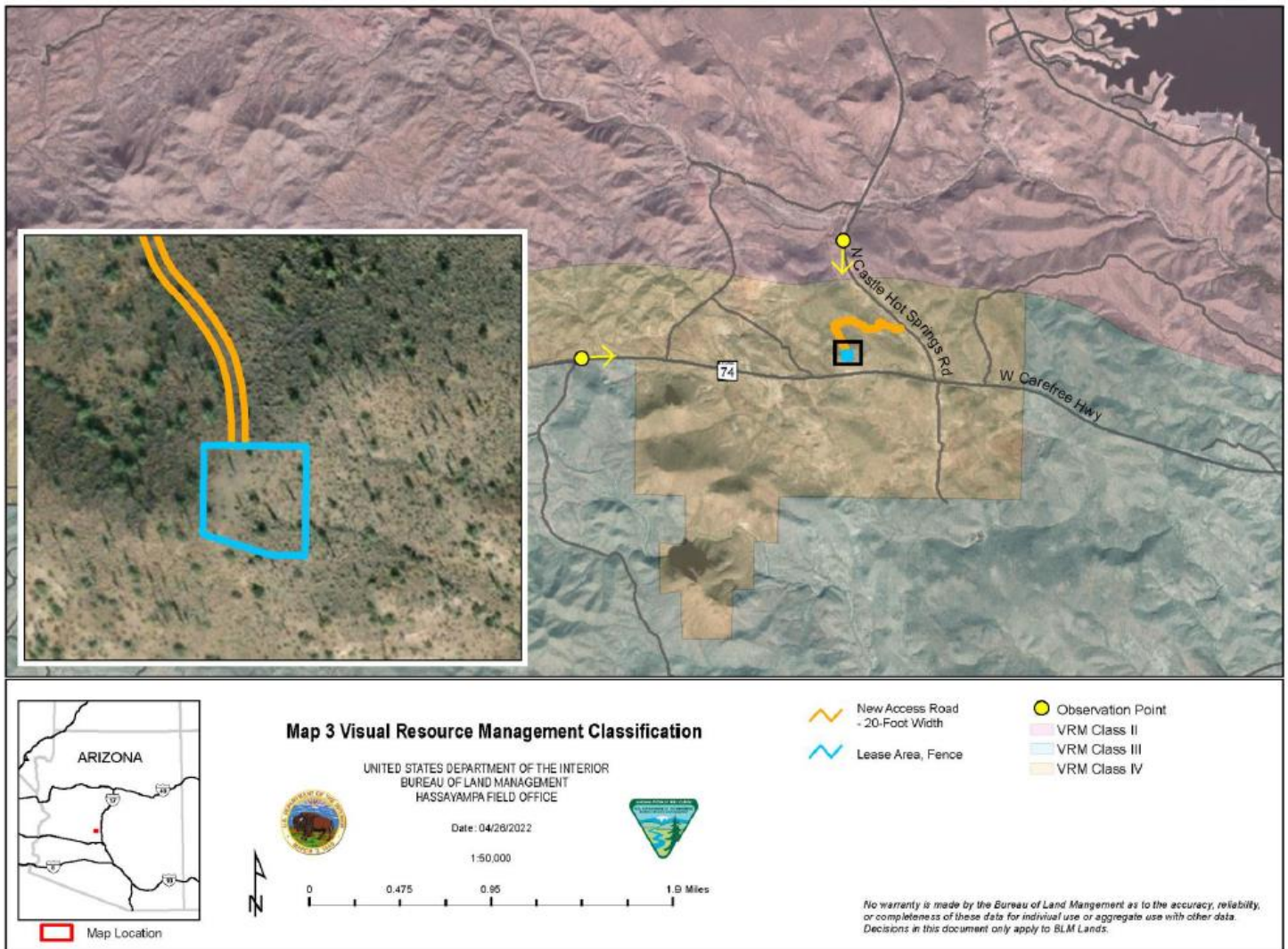
Measure Number	Mitigation
Applicant-Proposed Desert Tortoise Avoidance and Minimization Measures	
DT-1	The applicant would designate a Field Contact Representative (FCR) who would be responsible for overseeing compliance with protective stipulations for the desert tortoise and for coordination on compliance with the BLM. The FCR would be on-site during all ground-disturbing construction and O&M activities and would have the authority to halt all activities that are in violation of protective measures. The FCR would have a copy of all measures when ground-disturbing construction or O&M activities are being conducted in the Project area. The FCR may be a crew chief or field supervisor, a Project manager, any other employee of the Applicant, or a contracted biologist.
DT-2	The Applicant would designate “qualified biologists” to oversee and implement desert tortoise-specific measures. A “qualified biologist” is defined as a trained wildlife biologist who is knowledgeable about the biology of desert tortoises, their habitat requirements, identification of their sign, and mitigation techniques and survey procedures for the species. The Applicant would submit the name of proposed qualified biologists to the BLM for review and approval at least 30 days prior to the onset of ground-disturbing construction activities. Qualified biologists would be named on a Scientific Collecting Permit issued by Arizona Game and Fish Department (AGFD), authorizing handling and relocation of desert tortoises at risk of injury within the Project area.
DT-3	<p>All construction and O&M personnel would participate in a desert tortoise education program prior to working on site. The applicant would be responsible for ensuring that the education program is developed and presented to the appropriate personnel. The program would cover the following topics at a minimum:</p> <ul style="list-style-type: none"> • Distribution of the desert tortoise • General behavior and ecology of the desert tortoise • Sensitivity to human activities • Legal protection • Penalties for violations of state laws and conditions of the BLM’s authorization • Reporting requirements • Protective measures to be implemented
DT-4	Prior to construction of a new access road, a qualified biologist would participate in micro-siting of the access route and would flag the proposed route to avoid burrows where feasible and to minimize disturbance of vegetation.
DT-5	Prior to initial grubbing and grading of the access road, a preconstruction clearance survey would be conducted to locate and remove desert tortoises found in harm’s way. The survey would be conducted by a qualified biologist within 24 hours of the onset of initial grubbing and grading. Pre-construction clearance surveys would be conducted in accordance with current AGFD guidelines. Burrows that cannot be avoided would be excavated during the clearance survey. Relocation would occur at the discretion of the qualified biologist, but desert tortoises would not be moved outside their home range (i.e., more than 1,000 feet [305 meters]).
DT-6	<p>A qualified biologist would be on site to monitor all ground disturbing construction activities that are outside any tortoise fenced areas. If a desert tortoise is observed, and may be adversely affected by activities, ground-disturbing activities would be stopped until the biologist has verified that the individual has moved from harm’s way under its own power. The determination of which activities may adversely affect the desert tortoise would be made in the field by the qualified biologist. qualified biologist would monitor the desert tortoise until it is confirmed to be out of harm’s way. If the qualified biologist determines that the desert tortoise will not passively relocate (i.e., move from harm’s way under its own power within a reasonable period of time), the qualified biologist may actively relocate the individual out of harm’s way.</p> <p>Potential handling of desert tortoises for active relocation would not occur until a qualified biologist is approved by the BLM and AGFD. Active relocation of desert tortoises from harm’s way would be conducted in accordance with the most current guidance from the AGFD. The qualified biologist</p>

**TABLE D-1
APPLICANT PROPOSED MITIGATION**

Measure Number	Mitigation
	<p>would be allowed some judgment and discretion to ensure that the survival of the desert tortoise is likely.</p> <p>Desert tortoises actively moved from harm's way would be marked for future identification in the event that a dead desert tortoise is found later within the Project area. An identification number using the acrylic paint/epoxy covering technique would be placed on the fourth left costal scute. In handling desert tortoises, the qualified biologist would follow the most current guidance from the AGFD. If a desert tortoise voids its bladder during handling, the qualified biologist would rehydrate the individual in accordance the most current guidance from the AGFD.</p> <p>The qualified biologist would maintain a record of all desert tortoises handled. This information would include the following for each desert tortoise:</p> <ul style="list-style-type: none"> • The locations (narrative and maps) and dates of observations • General condition and health, including injuries and state of healing and whether the animals voided their bladders • The location from which the animal was collected and the location in which it was released • Diagnostic markings (i.e., identification numbers or marked lateral scutes) • Photographs of each handled desert tortoise as described above
DT-7	<p>Prior to, and during all construction activities, all equipment storage and parking would be confined to the maximum extent possible to previously disturbed areas or fenced communication site cleared of desert tortoises.</p> <p>No heavy equipment would be moved into the fenced area until the area is clear of desert tortoises. A qualified biologist would walk in front of equipment during the initial site entry to ensure that no desert tortoises or their burrows are harmed.</p> <p>Workers would inspect for desert tortoises under a vehicle prior to moving it. If a desert tortoise is found under a vehicle, a qualified biologist would be contacted to monitor the individual until it has left of its own accord. If the desert tortoise must be moved, the qualified biologist would ensure that the desert tortoise is relocated in accordance with the most current guidance from the AGFD. All observations of desert tortoises and their sign would be reported to the qualified biologist as soon as possible.</p>
DT-8	<p>All trash and food items would be promptly contained within closed, wildlife-proof containers. These would be regularly removed from the Project area to reduce the attractiveness of the area to common ravens, coyotes, and other predators of the desert tortoise.</p>
DT-9	<p>No later than 90 days after completion of construction or termination of construction activities, the FCR and qualified biologist would prepare a report for the BLM documenting the effectiveness and practicality of the avoidance and minimization measures, the number of desert tortoises excavated from burrows, the number of desert tortoises moved, the number of desert tortoises killed or injured, and the specific information for each desert tortoise as described previously. The report would address compliance with all avoidance and minimization measures. The report may make recommendations for modifying the measures to enhance protection of the desert tortoise or to make it more workable during operation and maintenance activities. The report would provide an estimate of the actual acreage of desert tortoise habitat disturbed by construction.</p>
DT-10	<p>Upon locating a dead or injured desert tortoise during construction or operation and maintenance, the Applicant would immediately notify the BLM. The information provided would include the date and time of the finding or incident (if known), location of the carcass or injured animal, a photograph, cause of death (if known), and other pertinent information.</p> <p>An injured animal would be transported to a qualified veterinarian for treatment at the expense of the Applicant. If an injured animal recovers, the AGFD would be contacted for final disposition of the animal.</p>

TABLE D-1 APPLICANT PROPOSED MITIGATION	
Measure Number	Mitigation
	<p>The BLM would endeavor to place the remains of intact desert tortoise carcasses with educational or research institutions holding the appropriate state and federal permits according to their instructions. If such institutions are not available or the animal's remains are in poor condition, the information noted above would be obtained and the carcass left in place. If left in place and sufficient pieces are available, the carcass would be marked to ensure that it is not reported again. Arrangements for disposition to a museum would be made prior to removal of the carcass from the field.</p>
Applicant Proposed Migratory Bird Avoidance and Minimization Measures	
MB-1	<p>To the extent possible, construction would occur outside the typical avian breeding season ((March 1 – August 31)). If construction must occur during the general avian breeding season, a preconstruction nest survey would be conducted within the Project area and a 500-foot buffer by a biological monitor no more than three days prior to the start of construction in any given area of the Project area. Construction crews would coordinate with the biological monitor at least three days prior to the start of construction activity in a given area to ensure that the construction area has been adequately surveyed. If no active nests are discovered, construction may proceed. If active nests are observed that could be disturbed by construction activities, these nests and an appropriately sized buffer would be avoided until the young have fledged and/or the monitor determines that no substantial impacts are anticipated to the nesting birds or their young. The biological monitor would be responsible for coordinating with USFWS to determine if construction activities could disturb an active nest, the appropriately sized buffer to avoid active nests, and when nests are no longer active. If construction ceases for five or more consecutive days during the nesting season, repeat nesting bird surveys would be required to ensure new nesting locations have not been established within the impact area and the defined buffers. Vegetation that could provide habitat for nesting birds (e.g., shrubs, trees, cacti with cavities) must be cut or cleared prior to construction during non-nesting season (September 1 – February 28). This will alleviate concerns of accidental nest destruction and disturbance during the construction phase.</p>
MB-2	<p>Construction-generated noise may result in disturbance to nesting migratory birds. The following measures would be incorporate to minimize noise generated from construction activities:</p> <ul style="list-style-type: none"> • Heavy equipment would be repaired as far as practical from habitats where nesting birds may be present. The biological monitor would determine where heavy equipment repair may take place onsite during the nesting season. • Construction equipment, including generators and compressors, would be equipped with manufacturers' standard noise-control devices or better (e.g., mufflers, acoustical lagging, and/or engine enclosures). • The construction contractor would maintain all construction vehicles and equipment in proper operating condition and provide mufflers on all equipment.
Applicant-Proposed Saguaro Avoidance and Minimization Measures	
S-1	<p>Saguaros will be avoided to the extent practicable, and Saguaros that cannot be avoided will be replaced as follows. The access road will be designed and constructed to avoid all Saguaros. Small saguaros within the boundaries of the cellular facility will be transplanted outside the boundaries of the work area. Large saguaros (over ten feet tall) within the boundaries of the cellular facility will be transplanted if feasible or replaced with two saguaros approximately 6 feet tall. All transplanted saguaros will be watered and monitored for 5 years after construction. Transplanted Saguaros that die during the monitoring period will be replaced.</p>

Appendix D – Visual Resources Materials



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET


Date: **June 28, 2021**

District Office: **Phoenix Office**

Field Office: **Hassayampa Field Office**

Land Use Planning Area: **Lake Pleasant**

SECTION A. PROJECT INFORMATION

1. Project Name: ICT Multi-Tenant Wireless Communications Sites (Lake Pleasant Road Site)	4. KOP Location (T.R.S.) Township 6N Range 1W Section 27	5. Location Sketch 
2. Key Observation Point (KOP) Name: KOP 1 – SR74 eastbound		
3. VRM Class at Project Location: IV	(Lat. Long.) 33d 50' 8.49"N 112d 20' 50.55"W	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG: Gently rolling, concave and convex; angular (butte) BG: Rugged, trapezoidal	FG: tall to short, linear, columnar, rounded to oval, solid BG: linear, rounded, indistinct	Linear and curving highway. Columnar, geometric and convex for structures and wires
LINE	FG and BG: Curving, angular, undulating	Indistinct to horizontal, irregular (shrubs) Straight, regular (saguaro)	Straight to slightly curving highway; straight and curving for structures
COLOR	FG: Dark browns with golden-brown BG: Medium and dark browns	Green, olive green; tans	Medium grey roadway, Dulled grey for structures and wires
TEXTURE	Medium to fine texture for hills and rough for butte	Medium to fine	Fine to smooth; clustered; ordered

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Columnar, bold, thin,	Geometric, horizontal vegetative clearing	Tall, thin cell tower
LINE	Straight, tall	Straight vegetative clearing	Vertical, straight cell tower
COLOR	Dark brown	Brown, greens	Medium grey cell tower
TEXTURE	Fine	Fine	Fine

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side)	
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)					
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	3. Additional mitigation measures recommended <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Explain on reverse side)	
ELEMENTS	FORM		X					X			X				
	LINE		X				X				X				
	COLOR		X				X				X				
	TEXTURE		X					X			X				
														Evaluator's Names	Date
														Conrad Langley	6-13-21

SECTION D. (Continued)

Comments from item 2.

Views from SR74, eastbound, would be slightly inferior (i.e., the viewer would be looking slightly upward at the Project features), and from a distance of approximately 1.3 miles as seen from this KOP. Views of the Project would be unobstructed with the main Project feature skylined (not backdropped by the landscape). Although most project facilities could be visible from this KOP, the proposed tower would be the most visible element.

Due to the presence of the 69kV transmission line north of the highway, views of the Project would be seen in the context of manmade objects of similar form, line, color, and texture. For this reason, the perceived contrast would be Moderate, and the Project would be seen but would not attract the attention of the casual observer traveling eastbound on the highway.

The overall degree of contrast from this KOP would be Moderate, but the Project would conform with the objectives of the VRM Class IV in which it would be located.




Photo 1 – Views of proposed Project site from SR74 Facing East. Project site is located approximately 1.3 miles from photo location on hill right of center of photo.

Additional Mitigating Measures (See item 3)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: **June 28, 2021**District Office: **Phoenix Office**Field Office: **Hassayampa Field Office**Land Use Planning Area: **Lake Pleasant**

SECTION A. PROJECT INFORMATION

1. Project Name: ICT Multi-Tenant Wireless Communications Sites (Lake Pleasant Road Site)	4. KOP Location (T.R.S.) Township 6N Range 1W Section 24	5. Location Sketch 
2. Key Observation Point (KOP) Name: KOP 2 – Castle Hot Springs Road		
3. VRM Class at Project Location: II		
		(Lat. Long.) 33d 50' 41.72"N 112d 19' 26.05"W

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	FG to MG: Gently rolling, concave and convex;	FG: tall to short, linear, regular MG: indistinct	Linear and curving highway. Columnar, geometric and convex for structures and wires
LINE	FG to MG: Curving, angular, undulating	Irregular (shrubs) Straight, regular (saguaro)	Straight to slightly curving highway; straight and curving for structures
COLOR	FG: Light browns	Green, olive green; tans	Medium grey roadway, Brown for poles and dulled grey for wires
TEXTURE	Medium to fine texture	Medium to fine	Fine to smooth; clustered; ordered

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Columnar, bold, thin,	Geometric, horizontal vegetative clearing	Tall, thin cell tower
LINE	Straight, tall	Straight vegetative clearing	Vertical, straight cell tower
COLOR	Tan/beige	Brown, greens	Medium grey cell tower
TEXTURE	Fine	Fine	Fine

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side) 3. Additional mitigation measures recommended <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Explain on reverse side)		
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)						
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE			
ELEMENTS	FORM		X					X			X				Evaluator's Names Conrad Langley	Date 6-13-21
	LINE		X				X			X						
	COLOR		X				X			X						
	TEXTURE		X					X			X					

(Continued on Page 2)

(Form 8400-4, Page 1)

SECTION D. (Continued)

Comments from item 2.

Views from Castle Hot Springs Road, northbound, would be slightly inferior (i.e., the viewer would be looking slightly upward at the Project features), and from a distance of approximately 0.6 miles as seen from this KOP. Views of the Project would be partially obstructed with the main Project feature partially skylined (not backdropped by the landscape). Due to topography, the shorter structures of the project facilities would not be visible from this KOP; however, the majority of the proposed tower would be visible. For travelers along the roadway approaching the KOP, views of the project from Lake Pleasant Regional Park would be partially to fully obscured due to topography and meandering road that redirects travelers' views.

Due to the presence of the distribution line west of the roadway, views of the Project would be seen in the context of manmade objects of similar form, line, color, and texture. For this reason, and the project being partially obscured by topography, the perceived contrast would be Moderate, and the Project would be seen but would not attract the attention of the casual observer traveling eastbound on the highway.

The overall degree of contrast from this KOP would be Moderate, but the Project would conform with the objectives of the VRM Class IV in which it would be located.



Photo 1 – Views of proposed Project site from Castle Hot Springs Road, VRM Class II. Project site is located approximately 0.6 miles from photo location on hill, center of photo.

Additional Mitigating Measures (See item 3)

VICINITY MAP



PROPOSED



EXISTING

**PROPOSED TOWER CENTER**

RADIUS OF CENTRAL:
 LAT: N003° 50' 10.80"
 LON: W112° 18' 24.80"
 NG ELEV: 1888.0 FEET A.M.S.L.

PROPOSED TOWER TYPE:

150' LATTICE WITH A 20' X 30' CONCRETE
 BASE



NO.	DATE	DESCRIPTION	NOTES
1	1/20/22	VISUAL SIMULATOR	RECONSTRUCTED BASED ON EXISTING SITE
2			
3			

CLIENT
InterConnect Towers, LLC
 27782 ANTONIO PKWY, SUITE 421
 LADERA RANCH, CA 92654

CONSULTANT
LISA SURVEYING CORP
 1000 N. GATEWAY AVE, SUITE 100
 LADERA RANCH, CA 92654
 TEL: 949.255.1234 FAX: 949.255.1235

SHEET TITLE
**HWY 74
 LAKE PLEASANT
 VISUAL SIMULATION
 KOP #1**

VICINITY MAP



PROPOSED



EXISTING

PROPOSED TOWER CENTERNAD83 AZ CENTRAL:

LAT: N030° 50' 10.80"

LON: W112° 18' 24.00"

NG ELEV: 1588.0 FEET A.M.S.L.

PROPOSED TOWER TYPE:

190' LATTICE WITH A 36" X 36" CONCRETE BASE



NO.	DATE	DESCRIPTION	NOTES	CLIENT	CONSULTANT	SHEET TITLE
1	7/8/21	VISUAL SIMULATION	BACKGROUND IMAGES PROVIDED BY 800000	InterConnect Towers, LLC 27762 ANTONIO PKWY, SUITE 471 LADERA RANCH, CA 92854	 LEJA SURVEYING CORP. <small>Equal Opportunity Employer M/F/V/H</small>	HWY 74 LAKE PLEASANT VISUAL SIMULATION KOP #2
2						
3						

Project Maps

